PB81-176000

Research, Demonstration, Training, and Fellowship Awards

(U.S.) Environmental Protection Agency
Washington, DC

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U.S. Department of Commerce
National Technical Information Service
NTIS

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United States
Environmental Protection
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Grants Administration
Division (PM-216)
Washington, DC 20460

EPA-GAD/1-79-02
April-September 1979

EPA

Research, Demonstration, Training, and Fellowship Awards

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SOURCES OF INFORMATION ON EPA GRANTS AWARDED, REPORTS GENERATED BY GRANTS AND OTHER GRANT RELATED MATERIALS

Research, Demonstration, Training, and Fellowship Awards

Section I lists research, demonstration, training, and fellowship awards by State, program, and grantee name. Each record provides applicant name. municipality, program element, title, project director, grant identification number, type of grant award, date and dollar amount of award. Section II contains brief project descriptions for research and demonstration projects administered by Headquarters and is arranged in ascending order by the grant identification number. An index is provided for cross-referencing the information between Sections I and II.

1st Half of FY 1977 (October 1976 - March 1977)
EPA-GAD/ 1-78-01, NTIS Number PB278942, price $7.25

2nd Half of FY 1977 (April 1977 - September 1977)
EPA-GAD/ 1-78-02, NTIS Number PB283959, price $21.50

1st Half of FY 1978 (October 1977 - March 1978)
EPA-GAD/ 1-78-03, NTIS Number PB289857, price $9.00

2nd Half of FY 1978 (April - September 1978)
EPA-GAD/ 1-78-02

State and Local Grant Awards

Lists all State and Local Assistance Awards by State, by program, and by grantee name. Format the same as for Research, Demonstration, Training and Fellowship Awards listed above.

1st Half of FY 1977 (Octover 1976 - March 1977)
EPA-GAD/ 2-78-01, NTIS Number PB279888 price $11.75

2nd Half of FY 1977 (April 1977 - September 1977)
EPA-GAD/ 2-78-02, NTIS Number PB282687, price $15.25

1st Half of FY 1978 (October 1977 - March 1978)
EPA-GAD/ 2-78-03, NTIS Number and price to be assigned.

2nd Half of FY 1978 (April - September 1978)
EPA-GAD/ 2-79-01

1st Half of FY 1979 (October 1978 - March 1979)
EPA-GAD/ 2-79-02

Awards Register, Grants Assistance Programs of EPA

Volume I. Section I lists research, demonstration, training and fellowship awards by State, program, and grantee name. Each record provides applicant name, municipality, program element, title, project director, Grant Identification Number, type of grant award, date and dollar amount of award. Section II contains brief project descriptions for research and demonstration projects administered by Headquarters and is arranged in ascending order by the Grant Identification Number. An index is provided for cross-referencing the information between Sections I and II. Section III is a cross-walk for use in identifying the program/subprogram area of a grant in accordance with classifications of our Office of Research and Development.

1st Half of FY 1976 (July 1975 - December 1975)
EPA-GAD/1-76-001, NTIS Number PB252893, price $5.25

2nd Half of FY 1976 (January 1976 - June 1976)
EPA-GAD/1-76-003, NTIS Number PB260742, price $9.00

Transition Quarter of FY 1976 (July 1976 - September 1976)
EPA-GAD/1-76-005, NTIS Number PB275407/AS, price $8.00

1st Half of FY 1975 (July 1974 - December 1974)
EPA-GAD/1-75-001, NTIS Number PB241476, price $5.25, Microfiche, $3.00

2nd Half of FY 1975 (January 1975 - June 1975)
EPA-GAD/1-75-003, NTIS Number PB245575, price $10.75, Microfiche $3.00

Volume II. Lists all State and Local Assistance Awards by State, by program, and by grantee name. Contents and format the same as for Volume I, Section I.

1st Half of FY 1976 (July 1975 - December 1975)
EPA-GAD/1-76-002, NTIS Number PB253091, price $11.00

2nd Half of FY 1976 (January 1976 - June 1976)
EPA-GAD/1-76-004, NTIS Number PB261980, price $11.00

Transition Quarter of FY 1976 (July 1976 - September 1976)
EPA-GAD/1-76-006, NTIS Number PB275408/AS, Price $9.00

Awards Register, Volume II, Continued

1st Half of FY 1975 (July 1974 - December 1974)
EPA-GAD/1-75-002, NTIS Number PB241400, price $9.00,
Microfiche, $3.00.

2nd Half of FY 1975 (January 1975 - June 1975)
EPA-GAD/1-75-004, NTIS Number PB245576, price $11.75,
Microfiche, $3.00.

Awards Register, Grants Assistance Programs of EPA
Fiscal Year 1974 (July 1973 - June 1974)

Volume I. Lists all awards in Fiscal Year 1974 except Waste Water Treatment Construction and Waste Water Treatment Reimbursement Awards. NTIS N-mber PB238370, price $8.00, microfiche, $3.00.

Volume II. Lists only Waste Water Treatment Construction Awards in Fiscal Year 1974. NTIS Number PB238371, price $9.25, microfiche, $3.00.

Volume III. Lists only Waste Water Treatment Reimbursement Awards in Fiscal Year 1974. NTIS Number PB238372, price $9.00, microfiche, $3.00.

Awards Register, Grants Assistance Programs of EPA
Fiscal Year 1973 (July 1972 - June 1973)

The format of this publication has the initial sort by State. Each entry includes grantee identification, program area, grant title, grant number, award date, and dollar amount. Environmental Protection Agency 220/1-73-004, NTIS Number PB229827, price $15.25, microfiche $3.00.

The above publications can be purchased from:

National Technical Information Service (NTIS)
Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
(703) 557-4650

Awards Register, Grants Assistance Programs of EPA
Fiscal Year 1972 (July 1971 - June 1972)

This publication is currently out of print. It is available for reference at all EPA libraries and at EPA Headquarters, Grants Administration Division, 401 M Street SW, Washington, D.C.

FEDERAL ASSISTANCE PROGRAMS OF THE ENVIRONMENTAL PROTECTION AGENCY

This publication includes descriptive information about Environmental Protection Agency assistance programs reprinted from the Catalog of Federal Domestic Assistance, which was prepared for the Office of Management and Budget. Similar information on programs of all Federal agencies is included in the Catalog which is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20420 for $18.00 and includes changes as issued. It is also available for public use in Federal Depository Libraries.

Copies of this publication may be obtained from the Environmental Protection Agency, Grants Operations Branch, Grants Administration Division (PM-216), Office of Planning and Management, Washington, D.C. 20460.

NOTE: All of the preceeding publications are available for examination at the Grants Administration Division and Library of EPA Headquarters and each Regional office.

OTHER GRANT-RELATED INFORMATION

A brief summary of a grant project is available on the majority of research and demonstration grants.

These summaries are available for projects that have received Federal funding. In rare instances, a grant application may contain privileged information and is so designated. For these, only the award data, such as grant number, applicant name, organization, location, grant title, amount awarded, and award date is available. Other information may be available depending on the particular circumstances.

The Smithsonian Science Information Exchange (SSIE), room 300, 1730 M Street, N.W., Washington, D.C. 20036, receives a copy of the summary of a grant and makes it available to the public on a fee basis. The cost of a print-out, if the Agency is identified and the grant or contract number is provided, costs $2.00 per grant number with a $10.00 minimum fee. A search on a subject (topic) is $60.00 per search service for 1 to 50 titles, and an additional charge of 25¢ per title. A search on the investigator's name can also be performed. All inquiries and requests for this service should be addressed to SSIE or phone (202) 381-4211.

REPORTS GENERATED BY GRANT SUPPORTED PROJECTS

Final reports and other program reports generated by grant supported projects are published and made available if merited. Final report information is available from the following program offices:

For solid waste management and resource recovery:

Publication and Distribution Unit
Office of Solid Waste Management
Environmental Protection Agency
Cincinnati, Ohio 45268

For air pollution control:

Library MD-35
Environmental Protection Agency
Research Triangle Park, North Carolina 27711

For pesticide publications:

Information Section WH-569
Office of Pesticide Programs
Environmental Protection Agency
401 M Street SW
Washington, D.C. 20460

For other research and demonstration projects:

Technology Transfer Staff
Office of Research and Development
Environmental Protection Agency
Cincinnati, Ohio 45268

EPA REPORTS BIBLIOGRAPHY QUARTERLY SUPPLEMENT

(sponsored by Library Systems Branch)

The EPA Cumulative Bibliography 1970-1976 published in December 1976 (NTIS Number PB265920, price quite obtained from NTIS) contains a bibliographic citation with abstracts for reports generated by EPA and its predecessor agencies and entered into the NTIS collection through 1976. Access points to this information are by Report Title; Subject (keyword); Corporate or Personal Author; Contract Number; and Accession/Report Number.

Beginning in March 1977, quarterly update supplements will be published listing and indexing EPA technical reports and journal articles entered into the NTIS collection during the preceding quarter. An additional index titled "Sponsoring EPA Office" is included as well. The fourth quarterly issue will cumulate and become the annual index for the year.

To order documents or subscriptions, contact the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. Do not order from the U.S. Environmental Protection Agency. If what you have ordered is in stock on hand, you should receive your order within two weeks after it arrives at NTIS. If what you have ordered must be reproduced from a microform, or if all the paper copies have been sold and reprints are in process, you should receive your order within four to six weeks. Infrequently, orders may be further delayed by a contractor's inability to deliver to NTIS. You will be notified if such a delay is expected.

The EPA Reports Bibliography Quarterly Supplement series is available on annual subscription from NTIS at a cost of $45.00 for North American Continent users (single copies, when available, are $12.50 each). For those outside the North American Continent, please write NTIS for prices.

The following EPA libraries maintain for reference purposes completed sets of EPA reports on microfiche.

Region I Library
Room 2211-B, JFK Federal Bldg.
Boston, Massachusetts 02203

National Marine Water Quality Lab
P. O. Box 277
West Kingston, Rhode Island 02892

Region II Library
26 Federal Plaza
New York, New York 10007

Region II Field Office Library
Edison, New Jersey 08817

Region III Library
Curtis Bldg., 6th & Walnut Streets
Philadelphia, Pennsylvania 19106

Headquarters Library, Room 2404 WSM
401 M Street, S.W.
Washington, D.C. 20460

Region IV Library
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Library Services MD-35
Research Triangle Park
North Carolina 27711

Southeast Environmental Research Lab
College Station Road
Athens, Georgia 30601

Gulf Breeze Laboratory
Sabine Island, Bldg. 29
Gulf Breeze, Florida 32561

Region V Library
230 Dearborn Street, Rm. 1455-A
Chicago, Illinois 60604

Environmental Research Center Library
26 West St. Clair Street
Cincinnati, Ohio 45268

Environmental Research Lab-Duluth
6201 Congdon Boulevard
Duluth, Minnesota 55804

Region VI Library
First International Bldg.
1201 Elm Street
Dallas, Texas 75270

Robert S. Kerr Environmental Research Laboratory
P. O. Box 1198
Ada, Oklahoma 74820

Region VII Library
1735 Baltimore Avenue, Room 249
Kansas City, Missouri 64108

Region VIII Library, 8M-ASL
1860 Lincoln Street
Denver, Colorado 80203

National Field Investigation Center
Room A-1209, Bldg. 53
Box 25227, Denver Federal Center
Denver, Colorado 80225

Region IX Library
100 California Street
San Francisco, California 94111

National Environmental Research Center
P. O. Box 15027
Las Vegas, Nevada 89114

Region X Library
1200 Sixth Avenue
Seattle, Washington 98101

National Environmental Research Center
200 S.W. 35th Street
Corvallis, Oregon 97330

GRANT NUMBER	STATE	PROGRAM	APPLICANT
800665-135	WA	RESEARCH	WASHINGTON, UNIV. OF
801724-010	PA	DEMONSTRATION	WARREN CNTY. SOLID WASTE AUTH.
803396-018	CA	DEMONSTRATION	MOUNTAIN VIEW, CITY OF
803602-050	MN	DEMONSTRATION	ST. PAUL METRO. WASTE CONTROL COMM.
803660-035	TX	RESEARCH	TEXAS, UNIV. OF
803814-033	TX	RESEARCH	TEXAS, UNIV. OF
803814-034	TX	RESEARCH	TEXAS. UNIV. OF
803851-037	MN	RESEARCH	MINNESOTA, UNIV. OF
803893-032	FL	RESEARCH	MIAMI, UNIV. OF
803893-033	FL	RESEARCH	MIAMI, UNIV. OF
803953-025	GA	RESEARCH	GEORGIA INST OF TECH
803983-034	HI	RESEARCH	HAWAII, UNIV. OF
804033-035	WA	RESEARCH	WASHINGTON STATE UNIV.
804152-034	AK	RESEARCH	ALASKA, UNIV. OF
804168-032	OH	RESEARCH	CHILDREN'S HOSPITAL RES. FDN.
804254-017	NY	DEMONSTRATION	NEW YORK STATE DEPT. OF ENVRN. CONSERV
804366-025	CA	RESEARCH	CALIFORNIA, UNIV. OF
804395-034	MO	RESEARCH	WASHINGTON UNIV.
804430-033	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
804430-034	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
804458-022	FL	RESEARCH	WEST FLORIDA, UNIV. OF
804477-024	GA	RESEARCH	GEORGIA STATE UNIV.
804499-023	GA	RESEARCH	FORT VALLEY STATE COLLEGE
804539-040	FC	RESEARCH	MEDICAL RES & OCCUP HLTH, INST FOR
804541-022	FL	RESEARCH	WEST FLORIDA, UNIV. OF
804546-031	CA	RESEARCH	CALIFORNIA, UNIV. OF

GRANT NUMBER	STATE	PROGRAM	APPLICANT
804554-017	MA	RESEARCH	ARTHUR D. LITTLE, INC.
804563-032	NY	RESEARCH	MANHATTAN COLLEGE
804577-031	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
804585-022	NE	RESEARCH	CREIGHTON UNIV.
804588-013	WA	RESEARCH	WASHINGTON, UNIV. OF
804594-012	PA	RESEARCH	PENNSYLVANIA, UNIV. OF
804600-032	MN	RESEARCH	MINNESOTA, UNIV. OF
804612-031	OH	RESEARCH	OHIO STATE UNIV. RES. FDN.
804613-040	OK	RESEARCH	OKLAHOMA STATE UNIV.
804617-012	UT	RESEARCH	UTAH STATE DIVISION OF HEALTH
804620-024	CA	RESEARCH	CHINO BASIN MUN. WATER DIST.
804641-013	FC	RESEARCH	INSTITUTE FOR MEDICAL RES.
804647-026	LA	RESEARCH	NEW ORLEANS, UNIV. OF
804683-020	PA	RESEARCH	ACADEMY OF NATURAL SCIENCES
804686-022	MI	RESEARCH	MICHIGAN, UNIV. OF
804687-014	WI	RESEARCH	WISCONSIN DEPT. OF NATURAL RESOURCES
804691-011	MN	DEMONSTRATION	WASECA, CITY OF
804696-013	MA	DEMONSTRATION	WELLESLEY, TOWN OF
804733-021	OH	RESEARCH	CINCINNATI, UNIV. OF
804736-015	MN	RESEARCH	MINNESOTA, UNIV. OF
804743-030	NY	RESEARCH	NEW YORK STATE DEPT. OF HEALTH
804750-024	OR	RESEARCH	OREGON GRAD. CTR. FOR STUDY & RES.
804763-020	PA	RESEARCH	DREXEL UNIV.
804764-032	OR	RESEARCH	PORTLAND STATE UNIV.
804811-021	NC	RESEARCH	NORTH CAROLINA STATE UNIV.
804820-032	NY	RESEARCH	RENSSELAER POLYTECHNIC INST.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
804836-022	NJ	RESEARCH	PRINCETON UNIV.
8048[illegible]7-026	OK	RESEARCH	OKLAHOMA STATE UNIV.
804[illegible]7-027	OK	RESEARCH	OKLAHOMA STATE UNIV.
804866-011	MD	RESEARCH	MARYLAND, UNIV. OF
804894-012	MD	DEMONSTRATION	BALTIMORE, CITY OF
804896-012	OK	DEMONSTRATION	OKLAHOMA CONSERVATION COMM.
804897-012	CA	DEMONSTRATION	EAST BAY REGIONAL PARK DIST.
804900-015	NY	RESEARCH	CORNELL UNIV.
804900-016	NY	RESEARCH	CORNELL UNIV.
804902-012	IN	RESEARCH	EVANSVILLE, CITY OF
804906-014	NY	DEMONSTRATION	NEW YORK STATE DEPT. OF ENVRN. CONSERV
804917-040	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
804917-041	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
804921-031	CO	RESEARCH	COLORADO STATE UNIV.
804932-031	CT	RESEARCH	SIAM INST FOR MATH AND SOCIETY (SIMS)
804943-031	DE	DEMONSTRATION	E.I. DUPONT DE MENOURS & CO., INC.
804953-032	MN	RESEARCH	MINNESOTA, UNIV. OF
804976-030	LA	RESEARCH	LOUISIANA STATE UNIV. & A&M COLLEGE
804979-040	NC	RESEARCH	RESEARCH TRIANGLE INST.
804996-033	MN	RESEARCH	MINNESOTA, UNIV. OF
805008-030	OH	RESEARCH	OHIO STATE UNIV.
805045-012	NV	RESEARCH	NEVADA, UNIV. OF
805046-013	MI	RESEARCH	MICHIGAN STATE UNIV.
805059-012	WY	RESEARCH	WYOMING, UNIV. OF
805110-021	LA	RESEARCH	TULANE UNIV.
805117-013	OH	RESEARCH	DAYTON, UNIV. OF

GRANT NUMBER	STATE	PROGRAM	APPLICANT
805141-021	IL	RESEARCH	IIT RESEARCH INST.
805143-030	KY	RESEARCH	KENTUCKY, UNIV. OF
805150-030	FC	RESEARCH	TORONTO, UNIV. OF
805175-013	MD	RESEARCH	MARYLAND EASTERN SHORE, UNIV. OF
805183-030	CO	RESEARCH	COLORADO STATE UNIV.
805184-030	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
805189-013	OH	DEMONSTRATION	FARM BUREAU DEVELOPMENT CORP.
805210-030	OR	RESEARCH	OREGON STATE UNIV.
805222-022	NY	RESEARCH	DUDLEY OBSERVATORY
805229-030	NY	RESEARCH	MANHATTAN COLLEGE
805239-030	NY	RESEARCH	NEW YORK UNIV.
805242-011	OK	RESEARCH	OKLAHOMA STATE UNIV.
805263-011	WA	RESEARCH	WASHINGTON, UNIV. OF
805282-013	OR	RESEARCH	OREGON STATE UNIV.
805284-011	MO	DEMONSTRATION	MISSOURI DEPT. OF NATURAL RESOURCES
805292-030	TX	RESEARCH	BAYLOR COLLEGE OF MEDICINE
805293-020	IL	RESEARCH	ILLINOIS, UNIV. OF
805293-030	IL	RESEARCH	ILLINOIS, UNIV. OF
805297-030	MO	RESEARCH	MISSOURI, UNIV. OF
805305-012	GA	RESEARCH	GEORGIA, UNIV. OF
805313-030	WA	RESEARCH	WASHINGTON, UNIV. OF
805318-020	AZ	RESEARCH	ARIZONA, UNIV. (HLTH SCI CTR)
805319-030	UT	RESEARCH	UTAH STATE UNIV.
805325-021	IL	RESEARCH	DEPAUL UNIV.
805329-030	CO	RESEARCH	COLORADO STATE UNIV.
805339-030	MI	RESEARCH	MICHIGAN, UNIV. OF

GRANT NUMBER	STATE	PROGRAM	APPLICANT
805340-020	LA	RESEARCH	GULF SOUTH RES. INST.
805342-021	WA	RESEARCH	WASHINGTON STATE UNIV.
805371-020	NH	RESEARCH	MANCHESTER WATER WORKS
805391-030	MT	RESEARCH	MONTANA STATE UNIV.
805400-030	FL	RESEARCH	FLORIDA, UNIV. OF
805403-020	KS	RESEARCH	KANSAS STATE UNIV.
805407-021	OR	RESEARCH	OREGON STATE UNIV.
805410-030	CA	RESEARCH	CALIFORNIA, UNIV. OF
805417-012	DC	RESEARCH	UNITED STATES DEPT. OF AGRICULTURE
805418-012	CA	RESEARCH	WOODWARD CLYDE CONSULTANTS
805419-030	OK	RESEARCH	OKLAHOMA STATE UNIV.
805420-030	MA	RESEARCH	WHEATON COLLEGE
805429-030	MO	RESEARCH	MISSOURI, UNIV. OF
805431-031	IL	RESEARCH	ILLINOIS, UNIV. MEDICAL CTR.
805436-012	OH	RESEARCH	HEIDELBERG COLLEGE
805436-020	OH	RESEARCH	HEIDELBERG COLLEGE
805443-014	OH	RESEARCH	CINCINNATI, CITY OF
805443-020	OH	RESEARCH	CINCINNATI, CITY OF
805445-014	OH	RESEARCH	CINCINNATI, UNIV. OF
805453-020	AR	RESEARCH	ARKANSAS STATE GAME & FISH COMM
805455-030	KS	RESEARCH	KANSAS, UNIV. OF (CTR FOR RES)
805458-020	CT	RESEARCH	YALE UNIV.
805469-012	SC	RESEARCH	CHARLESTON, COLLEGE OF
805476-030	IL	RESEARCH	ILLINOIS, UNIV. OF
805488-011	RI	RESEARCH	RHODE ISLAND, UNIV. OF
805493-017	MA	RESEARCH	NEW ENGLAND FISHERIES STEERING COMM.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
805497-020	FL	RESEARCH	FLORIDA, UNIV. OF
805497-021	FL	RESEARCH	FLORIDA, UNIV. OF
805527-020	WA	RESEARCH	WASHINGTON STATE UNIV.
805532-030	CA	RESEARCH	CALIFORNIA, UNIV. OF
805552-030	MA	RESEARCH	MASSACHUSETTS INST. OF TECH.
805563-020	MI	RESEARCH	MICHIGAN STATE UNIV.
805565-012	MI	RESEARCH	MICHIGAN TECH. UNIV.
805571-020	OH	RESEARCH	OHIO AGR. RES & DEV. CTR.
805595-030	NC	RESEARCH	NORTH CAROLINA STATE UNIV.
805612-022	MA	RESEARCH	MASSACHUSETTS, UNIV. OF
805621-012	MI	RESEARCH	MICHIGAN, UNIV. OF
805624-021	MI	RESEARCH	MICHIGAN STATE UNIV.
805624-030	MI	RESEARCH	MICHIGAN STATE UNIV.
805629-014	IL	RESEARCH	CHICAGO METRO. SAN. DIST.
805636-012	MT	RESEARCH	MONTANA STATE UNIV.
805637-020	PA	RESEARCH	DREXEL UNIV.
805643-020	OH	RESEARCH	OHIO STATE UNIV.
805655-020	FL	DEMONSTRATION	REEDY CREEK IMPROVEMENT DIST.
805655-021	FL	DEMONSTRATION	REEDY CREEK IMPROVEMENT DIST
805661-015	AK	RESE[illegible]	WAINWRIGHT, CITY OF
805665-012	NV	RESEARCH	NEVADA MENTAL HEALTH INST.
805678-011	MN	RESEARCH	MINNESOTA, UNIV. OF
805680-020	CA	RESEARCH	CALIFORNIA, UNIV. OF
805689-020	DC	RESEARCH	HOWARD UNIV.
805693-020	OH	RESEARCH	CINCINNATI, UNIV. OF
805725-030	CO	RESEARCH	DENVER, UNIV. OF

GRANT NUMBER	STATE	PROGRAM	APPLICANT
805730-020	MI	RESEARCH	MICHIGAN STATE UNIV.
805731-012	AZ	RESEARCH	ARIZONA, UNIV. OF
805738-020	PA	RESEARCH	PENNSYLVANIA STATE UNIV.
805748-012	PA	DEMONSTRATION	GENERAL BATTERY CORP.
805753-012	WA	RESEARCH	WASHINGTON, UNIV. OF
805762-020	FL	RESEARCH	FLORIDA, UNIV. OF
805768-011	IL	DEMONSTRATION	METAL FINISHERS FDN.
805774-020	OR	RESEARCH	OREGON STATE UNIV.
805781-012	NY	RESEARCH	CORNELL UNIV.
805785-010	NY	DEMONSTRATION	NEW YORK STATE DEPT. OF ENVRN. CONSERV
805788-020	CA	RESEARCH	JOHN MUIR INST. FOR ENVRN. STUDIES
805788-021	CA	RESEARCH	JOHN MUIR INST. FOR ENVRN. STUDIES
805788-022	CA	RESEARCH	JOHN MUIR INST. FOR ENVRN. STUDIES
805789-011	LA	RESEARCH	LOUISIANA STATE UNIV. & A&M COLLEGE
805794-020	IL	RESEARCH	IIT RESEARCH INST.
805795-012	MA	DEMONSTRATION	BOSTON, CITY OF
805796-020	MI	RESEARCH	MICHIGAN, UNIV. OF
805809-020	WA	RESEARCH	WASHINGTON, STATE OF
805812-020	OH	RESEARCH	BATTELLE MEMORIAL INST.
805812-022	OH	RESEARCH	BATTELLE MEMORIAL INST.
805819-020	PA	RESEARCH	THOMAS JEFFERSON UNIV.
805822-011	TX	RESEARCH	NORTH TEXAS STATE UNIV.
805827-020	NJ	RESEARCH	RUTGERS UNIV.
805840-020	OH	RESEARCH	CINCINNATI, UNIV. OF
805843-020	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
805846-020	WA	RESEARCH	FRED HUTCHINSON CANCER RES.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
805863-020	OH	RESEARCH	NATIONAL WATER WELL ASSOC.
805864-011	IL	RESEARCH	IIT RESEARCH INST.
805877-020	AR	RESEARCH	ARKANSAS, UNIV. OF
805897-020	NC	RESEARCH	RESEARCH TRIANGLE INST.
805899-020	UT	RESEARCH	UTAH, UNIV. OF
805907-011	NJ	RESEARCH	RUTGERS UNIV.
805909-011	TX	RESEARCH	SOUTHWEST RES. INST.
805912-020	OR	RESEARCH	OREGON STATE UNIV.
805916-020	NY	RESEARCH	MANHATTAN COLLEGE
805918-015	MO	RESEARCH	WASHINGTON UNIV.
805918-020	MO	RESEARCH	WASHINGTON UNIV.
805920-011	DC	RESEARCH	ENVIRONMENTAL LAW INST.
805921-012	CO	RESEARCH	COLORADO, UNIV. OF
805926-020	CO	RESEARCH	DENVER, UNIV. OF
805931-020	VA	RESEARCH	VIRGINIA POLY INST & STATE UNIV.
805935-020	MT	RESEARCH	MONTANA STATE UNIV.
805935-021	MT	RESEARCH	MONTANA STATE UNIV.
805939-020	CO	RESEARCH	DENVER, UNIV. OF
805942-011	CA	RESEARCH	CALIFORNIA, STATE OF
805953-012	VA	RESEARCH	VIRGINIA INST. OF MARINE SCIENCE
805956-012	MI	RESEARCH	MICHIGAN, UNIV. OF
805956-013	MI	RESEARCH	MICHIGAN, UNIV. OF
805963-012	MD	RESEARCH	JOHNS HOPKINS, UNIV. OF
805964-011	MD	RESEARCH	JOHNS HOPKINS UNIV.
805966-011	VA	RESEARCH	WILLIAM & MARY COLLEGE
805971-020	OH	RESEARCH	CINCINNATI, UNIV. OF

GRANT NUMBER	STATE	PROGRAM	APPLICANT
805972-011	GA	RESEARCH	MOREHOUSE COLLEGE
805972-020	GA	RESEARCH	MOREHOUSE COLLEGE
805974-017	VA	RESEARCH	VIRGINIA INST. OF MARINE SCIENCE
805978-020	IN	RESEARCH	BUTLER UNIV.
805986-020	IL	RESEARCH	RUSH-PRESBYTERIAN-ST. LUKE'S MED CTR
805990-020	CA	RESEARCH	SRI INTERNATIONAL
805994-011	MI	RESEARCH	MICHIGAN, UNIV. OF
805999-020	CA	RESEARCH	CALIFORNIA, UNIV. OF
806002-020	VA	RESEARCH	VIRGINIA INST. OF MARINE SCIENCE
806004-020	DC	RESEARCH	HOWARD UNIV.
806005-020	MO	RESEARCH	WASHINGTON UNIV.
806009-012	ME	RESEARCH	MAINE, UNIV. OF
806020-020	MN	RESEARCH	MINNESOTA, UNIV. OF
806022-012	TX	RESEARCH	HOUSTON, UNIV. OF
806032-011	OR	RESEARCH	OREGON, UNIV. OF HLTH SCI CTR
806032-020	OR	RESEARCH	OREGON, UNIV. OF
806034-020	MI	RESEARCH	MICHIGAN STATE UNIV.
806042-020	CA	RESEARCH	CALIFORNIA, UNIV. OF
806043-011	WA	DEMONSTRATION	KENT, CITY OF
806046-011	TX	RESEARCH	TEXAS, UNIV. OF
806048-013	PA	RESEARCH	PENNSYLVANIA STATE UNIV.
806049-020	PA	RESEARCH	SUSQUEHANNA UNIV.
806051-020	CO	RESEARCH	COLORADO STATE UNIV.
806059-020	IA	RESEARCH	IOWA, UNIV. OF
806061-012	CA	RESEARCH	STANFORD UNIV.
806062-020	IL	RESEARCH	IIT RESEARCH INST.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806065-020	MI	RESEARCH	MICHIGAN STATE UNIV.
806066-020	MA	RESEARCH	TUFTS UNIV.
806072-020	RI	RESEARCH	RHODE ISLAND, UNIV. OF
806072-023	RI	RESEARCH	RHODE ISLAND, UNIV. OF
806074-020	MD	RESEARCH	JOHNS HOPKINS UNIV.
806083-020	MN	RESEARCH	MINNESOTA, UNIV. OF
806084-011	MN	RESEARCH	MINNESOTA, UNIV. OF
806087-020	OR	RESEARCH	OREGON STATE UNIV.
806093-020	CA	RESEARCH	SRI INTERNATIONAL
806094-011	CO	RESEARCH	COLORADO STATE UNIV.
806102-014	WA	RESEARCH	WASHINGTON, UNIV. OF
806121-012	FL	RESEARCH	WEST FLORIDA, UNIV. OF
806124-011	WA	RESEARCH	WASHINGTON STATE UNIV.
806130-013	FL	RESEARCH	FLORIDA STATE UNIV.
806132-013	OH	RESEARCH	CINCINNATI INST.
806143-020	FL	RESEARCH	FLORIDA STATE UNIV.
806156-012	CO	RESEARCH	DENVER, UNIV. OF
806159-020	MI	RESEARCH	MICHIGAN, UNIV. OF
806175-011	MN	RESEARCH	MINNESOTA, UNIV. OF
806175-020	MN	RESEARCH	MINNESOTA, UNIV. OF
806184-020	IN	RESEARCH	DEPAUW UNIV.
806189-011	MD	RESEARCH	CHESAPEAKE RES. CONSORTIUM
806194-011	TX	RESEARCH	TEXAS, UNIV. OF
806195-020	ID	RESEARCH	IDAHO, UNIV. OF
806208-020	NJ	RESEARCH	PRINCETON UNIV.
806210-020	NC	RESEARCH	NORTH CAROLINA, UNIV. OF

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806212-020	MS	RESEARCH	SOUTHERN MISSISSIPPI, UNIV. OF
806213-020	AL	RESEARCH	AUBURN UNIV.
806214-013	MI	RESEARCH	MICHIGAN STATE UNIV.
806219-010	TX	RESEARCH	TEXAS, UNIV. OF
806224-020	OR	RESEARCH	OREGON STATE UNIV.
806240-020	OH	RESEARCH	CINCINNATI, UNIV. OF
806255-020	TN	RESEARCH	TENNESSEE TECH UNIV.
806256-020	PA	RESEARCH	PHILADELPHIA WATER DEPT
806257-020	CA	RESEARCH	CALIFORNIA, UNIV. OF
806262-011	CA	RESEARCH	CALIFORNIA DEPT. OF WATER RES.
806269-011	IL	RESEARCH	IIT RESEARCH INST.
806270-020	CA	RESEARCH	CALIFORNIA, UNIV. OF
806271-020	NJ	RESEARCH	NEW JERSEY INSTITUTE OF TECH.
806274-020	OR	RESEARCH	OREGON GRAD. CTR. FOR STUDY
806274-021	OR	RESEARCH	OREGON GRAD. CTR. FOR STUDY
806277-020	TX	RESEARCH	TEXAS A&M RES. FDN.
806279-020	PA	RESEARCH	THOMAS JEFFERSON UNIV.
806282-020	MN	RESEARCH	MINNESOTA, UNIV. OF
806285-010	FL	RESEARCH	FLORIDA, UNIV. OF
806287-020	OR	RESEARCH	OREGON STATE UNIV.
806290-010	FL	RESEARCH	FLORIDA, UNIV. OF
806303-020	NM	RESEARCH	NEW MEXICO, UNIV. OF
806304-011	IL	RESEARCH	ILLINOIS, UNIV. OF
806305-011	CO	RESEARCH	COLORADO STATE UNIV.
806307-011	FL	RESEARCH	MIAMI, UNIV. OF
806316-020	SC	RESEARCH	CLEMSON UNIV.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806321-010	TX	RESEARCH	TEXAS PEST MANAGEMENT ASSOC.
806330-010	OK	RESEARCH	OKLAHOMA STATE UNIV.
806341-011	NY	RESEARCH	NEW YORK STATE ENERGY RES & DEV.
806341-012	NY	DEMONSTRATION	NEW YORK STATE ENERGY RES. & DEV AUTH
806343-011	MD	RESEARCH	MARYLAND DEPT. NATURAL RESOURCES
806357-012	CA	RESEARCH	BAY AREA GOVTS, ASSOC. OF
806368-020	AL	RESEARCH	AUBURN UNIV.
806371-012	IN	RESEARCH	AMERICAN PESTICIDE CONTROL ASSOC.
806373-010	FL	RESEARCH	FLORIDA, UNIV. OF
806376-010	OH	RESEARCH	CENTRAL STATE UNIV.
806387-020	WA	RESEARCH	WASHINGTON, UNIV. OF
806390-010	NY	RESEARCH	ROCHESTER, UNIV. OF
806391-020	IL	RESEARCH	ILLINOIS, UNIV. OF
806392-011	GA	RESEARCH	EMORY UNIV. SCHOOL OF MEDICINE
806396-011	CA	RESEARCH	CALIFORNIA DEPT OF HEALTH SERVICES
806399-010	CA	RESEARCH	LOS ANGELES CNTY SAN. DIST
806400-010	NC	RESEARCH	DUKE UNIV.
806411-010	NV	RESEARCH	NEVADA, UNIV. OF
806416-010	FC	RESEARCH	JERUSALEM, HEBREW UNIV OF
806418-010	MI	RESEARCH	MICHIGAN DEPT OF PUBLIC HLTH
806421-010	NC	RESEARCH	NORTH CAROLINA STATE UNIV.
806422-011	IL	RESEARCH	WESTERN ILLINOIS UNIV.
806426-010	SC	RESEARCH	CLAFLIN COLLEGE
806439-011	PA	RESEARCH	ALLEGHENY COLLEGE
806457-011	NV	RESEARCH	DESERT RESEARCH INST.
806461-010	VA	RESEARCH	AMERICAN INSTITUTE OF BIOLOGICAL SCI

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806465-010	OH	RESEARCH	NATIONAL WATER WELL ASSOC.
806474-010	FL	RESEARCH	FLORIDA, UNIV. OF
806490-010	OR	RESEARCH	OREGON STATE UNIV.
806491-010	CO	RESEARCH	COLORADO STATE UNIV.
806498-010	GA	RESEARCH	GEORGIA INST. OF TECH
806517-010	CO	RESEARCH	COLORADO, UNIV. OF
806518-010	MD	RESEARCH	MARYLAND, UNIV. OF
806519-010	NY	RESEARCH	MANHATTAN COLLEGE
806520-010	CO	RESEARCH	DENVER, UNIV. OF
806535-010	OH	RESEARCH	DAYTON, UNIV. OF
806540-010	WA	RESEARCH	WASHINGTON STATE DEPT. OF ECOLOGY
806541-010	TX	RESEARCH	TEXAS, UNIV. OF
806558-010	MD	RESEARCH	JOHNS HOPKINS UNIV.
806561-010	MN	RESEARCH	MINNESOTA, UNIV. OF
806563-010	CA	RESEARCH	CALIFORNIA DEPT OF HEALTH SERVICES
806569-010	MI	RESEARCH	MICHIGAN STATE UNIV.
806572-010	CT	RESEARCH	SIAM INST. FOR MATH & SOCIETY
806582-010	IL	RESEARCH	ILLINOIS INST. OF TECH.
806583-010	NJ	DEMONSTRATION	NEW JERSEY STATE DEPT OF ENVRN PROT
806586-010	CO	RESEARCH	COLORADO, UNIV. OF
806586-011	CO	RESEARCH	COLORADO, UNIV. OF
806588-010	FC	RESEARCH	HEBREW UNIV.
806589-010	NY	RESEARCH	UNITED ENGINEERING TRUSTEES, INC.
806592-010	GA	RESEARCH	GEORGIA, UNIV. OF
806593-010	NY	RESEARCH	NEW YORK UNIV. MEDICAL CTR.
806595-010	CO	RESEARCH	COLORADO STATE UNIV.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806597-010	MI	RESEARCH	CRANBROOK INST. OF SCIENCE
806600-010	MI	RESEARCH	MICHIGAN, UNIV. OF
806603-010	IA	RESEARCH	IOWA STATE UNIV.
806606-010	MO	RESEARCH	WASHINGTON UNIV.
806606-011	MO	RESEARCH	WASHINGTON UNIV.
806616-010	PA	RESEARCH	TEMPLE UNIV.
806622-010	MA	RESEARCH	MASSACHUSETTS INST. OF TECH.
806625-010	MD	RESEARCH	HAGERSTOWN, CITY OF
806628-010	CO	RESEARCH	COLORADO STATE UNIV.
806628-012	CO	RESEARCH	COLORADO STATE UNIV.
806629-010	CA	RESEARCH	HARVEY MUDD COLLEGE
806630-010	MA	RESEARCH	BOSTON UNIV.
806631-010	CA	RESEARCH	STANFORD UNIV.
806632-010	MN	RESEARCH	MINNESOTA, UNIV. OF
806637-010	WA	DEMONSTRATION	MOSES LAKE IRRIGATION & REHABILITATION
806638-010	OH	RESEARCH	OHIO STATE UNIV.
806640-010	NY	RESEARCH	ONONDAGA CNTY.
806641-010	KS	RESEARCH	KANSAS, UNIV. OF
806644-010	PA	RESEARCH	PITTSBURGH, UNIV. OF
806645-010	TX	RESEARCH	SOUTHWEST RES. INST.
806648-010	NY	RESEARCH	RENSSELAER POLYTECHNIC INST.
806649-010	PA	RESEARCH	FRANKLIN INST.
806650-010	MI	RESEARCH	MICHIGAN, UNIV. OF
806651-010	FL	RESEARCH	FLORIDA STATE UNIV.
806652-010	CA	RESEARCH	CALIFORNIA, UNIV. OF
806653-010	OH	RESEARCH	BATTELLE MEMORIAL INST.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806654-010	IL	RESEARCH	ILLINOIS, UNIV. OF
806657-010	NC	RESEARCH	NORTH CAROLINA A&T STATE UNIV.
806658-010	CO	RESEARCH	COLORADO STATE UNIV.
806661-010	CA	RESEARCH	CALIFORNIA, UNIV. OF
806662-010	NY	RESEARCH	INTERNATIONAL LEAD ZINC RES ORG INC
806669-010	OH	RESEARCH	CINCINNATI, UNIV. OF
806671-010	TN	RESEARCH	VANDERBILT UNIV.
806672-010	OH	RESEARCH	OHIO AGR. RES & DEV. CTR.
806673-010	DC	RESEARCH	GEORGE WASHINGTON UNIV.
806677-010	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
806677-011	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
806678-010	WA	RESEARCH	WASHINGTON STATE UNIV.
806680-010	MD	RESEARCH	JOHNS HOPKINS UNIV.
806683-010	WA	RESEARCH	WASHINGTON STATE UNIV.
806684-010	FL	RESEARCH	FLORIDA, UNIV. OF
806685-010	AZ	RESEARCH	ARIZONA, UNIV. OF
806686-010	WA	RESEARCH	SEATTLE, CITY OF, WATER DEPT.
806688-010	FL	RESEARCH	SOUTH FLORIDA, UNIV. OF
806690-010	IN	RESEARCH	NOTRE DAME, UNIV. OF
806693-010	FL	RESEARCH	FLORIDA STATE UNIV.
806697-010	PA	RESEARCH	AMERICAN SOCIETY FOR TESTING&MATERIALS
806699-010	PA	RESEARCH	FRANKLIN INST.
806700-010	MA	RESEARCH	MASSACHUSETTS, UNIV. OF
806701-010	MI	RESEARCH	NATIONAL SANITATION FOUNDATION
806702-010	NY	RESEARCH	AMERICAN SOCIETY OF CIVIL ENGRS.
806704-010	CO	RESEARCH	DENVER URBAN DRAINAGE & FLOOD

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806705-010	CA	RESEARCH	CALIFORNIA, UNIV. OF
806707-010	NH	RESEARCH	DARTMOUTH COLLEGE
806709-010	DC	RESEARCH	NATIONAL CTR FOR RESOURCE REC INC
806711-010	LA	RESEARCH	TULANE UNIV.
806712-010	OK	RESEARCH	OKLAHOMA, UNIV. OF
806714-010	FL	RESEARCH	FLORIDA, UNIV. OF
806715-010	FL	RESEARCH	CENTRAL FLORIDA, UNIV. OF
806718-010	CA	RESEARCH	ATMOSPHERIC RES. GROUP
806719-010	FL	RESEARCH	FLORIDA A&M UNIV.
806722-010	FL	RESEARCH	MIAMI, UNIV. OF
806724-010	PA	RESEARCH	PITTSBURGH, UNIV. OF
806726-010	TN	RESEARCH	TENNESSEE, UNIV. OF
806728-010	GA	RESEARCH	SAVANNAH STATE COLLEGE
806729-010	CA	RESEARCH	SRI INTERNATIONAL
806734-010	CA	RESEARCH	CALIFORNIA DEPT OF HEALTH SERVICES
806735-010	RI	RESEARCH	RHODE ISLAND, UNIV. OF
806736-010	CA	DEMONSTRATION	ORANGE CNTY. WATER DIST.
806742-010	NY	RESEARCH	SUNY RESEARCH FDN
806743-010	TX	RESEARCH	TEXAS, UNIV. OF
806744-010	FL	RESEARCH	FLORIDA, UNIV. OF
806746-010	FC	RESEARCH	GEORGE J. SHELLEY
806747-010	IL	RESEARCH	ILLINOIS, UNIV. OF
806753-010	VA	RESEARCH	ESTUARINE RES. FDN.
806754-010	MI	RESEARCH	EAST CENTRAL MICHIGAN PLANNING & DEVEL
806757-010	OH	RESEARCH	WRIGHT STATE UNIV.
806769-010	SD	RESEARCH	SOUTH DAKOTA SCHOOL OF MINES & TECH

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806771-010	TX	RESEARCH	TEXAS A&M RES. FDN.
806772-010	NY	RESEARCH	ROCHESTER, UNIV. OF
806776-010	MA	RESEARCH	NEW ENGLAND AQUARIUM
806777-010	CA	RESEARCH	SALK INSTITUTE, THE
806780-010	OR	RESEARCH	OREGON STATE UNIV.
806782-010	TN	DEMONSTRATION	KINGSPORT, CITY OF
806783-010	DC	DEMONSTRATION	WASHINGTON METRO COUNCIL OF GOVT
806784-010	NY	DEMONSTRATION	NEW YORK STATE DEPT. OF ENVRN. CONSERV
806785-010	WI	RESEARCH	MARQUETTE UNIV.
806785-011	WI	RESEARCH	MARQUETTE UNIV.
806787-010	CA	RESEARCH	CALIFORNIA, UNIV. OF
806790-010	HI	RESEARCH	HONOLULU CITY & CNTY
806791-010	PA	RESEARCH	GANNON COLLEGE
806793-010	TX	RESEARCH	TEXAS A&M RES. FDN.
806795-010	AZ	RESEARCH	ARIZONA, UNIV. OF
806798-010	OK	RESEARCH	OKLAHOMA STATE UNIV.
806799-010	TX	RESEARCH	TEXAS, UNIV. OF
806801-010	MN	RESEARCH	MINNESOTA, UNIV. OF
806802-010	MA	RESEARCH	MASSACHUSETTS INST. OF TECH.
806805-010	CA	RESEARCH	CALIFORNIA, UNIV. OF
806809-010	NY	RESEARCH	MANHATTAN COLLEGE
806814-010	IA	RESEARCH	IOWA STATE UNIV.
806815-010	PA	RESEARCH	PITTSBURGH, UNIV. OF
806817-010	NY	RESEARCH	CLARKSON COLLEGE OF TECH.
806819-010	IL	RESEARCH	ILLINOIS, UNIV. OF
806820-010	NY	RESEARCH	NEW YORK STATE DEPT. OF HEALTH

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806821-010	CO	DEMONSTRATION	DENVER BD. OF WATER COMMISSIONERS
806824-010	DE	RESEARCH	DELAWARE, UNIV. OF
806825-010	TX	RESEARCH	TEXAS A&M RES. FDN.
806828-010	NY	RESEARCH	MANHATTAN COLLEGE
806829-010	NJ	RESEARCH	RUTGERS UNIV.
806836-010	OR	DEMONSTRATION	OREGON DEPT OF ENVRN QUALITY
806838-010	OR	DEMONSTRATION	OREGON DEPT OF ENVRN QUALITY
806839-010	NY	RESEARCH	NEW YORK STATE DEPT. OF ENVRN CONSERV
806841-010	WA	RESEARCH	WASHINGTON, UNIV. OF
806844-010	CA	RESEARCH	CALIFORNIA INST. OF TECH
806853-010	MD	DEMONSTRATION	MARYLAND STATE DEPT HEALTH&MENTAL HYG
806854-010	NJ	DEMONSTRATION	NEW JERSEY STATE DEPT OF ENVRN PROT
806855-010	MI	DEMONSTRATION	MICHIGAN STATE DEPT NATURAL RESOURCES
806856-010	WI	DEMONSTRATION	WISCONSIN STATE DEPT HEALTH & SOC SERV
806861-010	NY	DEMONSTRATION	NEW YORK STATE DEPT. OF ENVRN. CONSERV
806864-020	WI	RESEARCH	WISCONSIN, UNIV. OF
806865-010	NJ	RESEARCH	NEW JERSEY STATE DEPT. OF HEALTH
806866-010	MS	RESEARCH	MISSISSIPPI STATE UNIV.
806869-010	DC	RESEARCH	OFFICIAL ANALYTICAL CHEMISTS ASSOC OF
806871-010	PA	RESEARCH	PENNSYLVANIA, UNIV. OF
806874-010	MA	RESEARCH	ARTHUR D. LITTLE, INC.
806875-010	CO	RESEARCH	COLORADO STATE UNIV.
806876-010	SC	RESEARCH	SOUTH CAROLINA, UNIV. OF (MED)
806876-012	SC	RESEARCH	SOUTH CAROLINA, UNIV. OF
806878-011	WI	RESEARCH	WISCONSIN, UNIV. OF
806878-013	WI	RESEARCH	WISCONSIN, UNIV. OF

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806891-010	WA	RESEARCH	WASHINGTON, STATE OF
806892-010	MN	RESEARCH	MINNESOTA, UNIV. OF
806894-010	MA	RESEARCH	AMERICAN METEOROLOGICAL SOCIETY
806897-010	CT	DEMONSTRATION	CONNECTICUT DEPT OF ENVRN PROT
806899-030	WY	RESEARCH	WYOMING, UNIV. OF
806899-031	WY	RESEARCH	WYOMING, UNIV. OF
806900-010	CT	DEMONSTRATION	STAMFORD, CITY OF
806902-010	NY	RESEARCH	SYRACUSE RES. CORP.
806903-010	IA	RESEARCH	IOWA, UNIV. OF
806904-010	TX	RESEARCH	TEXAS TECH UNIV. SCH OF MED
806906-010	DC	RESEARCH	RESOURCES FOR THE FUTURE
806912-010	NC	RESEARCH	NORTH CAROLINA STATE UNIV.
806915-010	FL	DEMONSTRATION	FLORIDA DEPT OF ENVRN REGULATION
806916-010	NC	RESEARCH	DUKE UNIV.
806917-010	PA	DEMONSTRATION	DELAWARE VALLEY REG PLNG COMM
806918-010	MO	DEMONSTRATION	ST. LOUIS CNTY DEPT OF COMMUN HEALTH
806919-010	MN	RESEARCH	MIDWEST RESEARCH INSTITUTE
806920-010	UT	DEMONSTRATION	UTAH STATE DIVISION OF HEALTH
806921-010	CO	DEMONSTRATION	THORNTON, CITY OF
806922-010	OK	DEMONSTRATION	NORMAN, CITY OF
806925-010	LA	DEMONSTRATION	JEFFERSON PARISH DEPT OF PUBLIC UTIL
806925-011	LA	DEMONSTRATION	JEFFERSON PARISH DEPT OF PUBLIC UTIL
806928-010	FC	RESEARCH	GUELPH, UNIV. OF
806929-010	IL	RESEARCH	IIT RESEARCH INST.
806930-010	ID	RESEARCH	IDAHO DEPT OF HEALTH & WELFARE
806931-010	OK	RESEARCH	OKLAHOMA, UNIV. OF

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806934-010	LA	DEMONSTRATION	NEW ORLEANS, CITY OF
806935-010	IA	DEMONSTRATION	DES MOINES, CITY OF
806937-010	CO	DEMONSTRATION	COLORADO STATE DEPT. OF HEALTH
806941-010	MA	DEMONSTRATION	MASSACHUSETTS PORT AUTHORITY
806944-010	PA	DEMONSTRATION	YORK, CITY OF
806949-010	DE	DEMONSTRATION	DELAWARE DEPT OF NAT RES & ENV CONTROL
806952-010	OH	DEMONSTRATION	OHIO DEPT OF HEALTH
806954-010	OH	RESEARCH	CINCINNATI, UNIV. OF
806962-010	NJ	DEMONSTRATION	NEW JERSEY STATE DEPT OF ENVRN PROT
806963-010	NJ	DEMONSTRATION	NEW JERSEY STATE DEPT OF ENVRN PROT
806967-010	OR	DEMONSTRATION	PORTLAND, CITY OF
806970-010	OH	DEMONSTRATION	MENTOR, CITY OF
806971-010	MN	DEMONSTRATION	LEAGUE OF MINNESOTA CITIES
806972-010	WY	RESEARCH	WYOMING, UNIV. OF
806973-010	MD	RESEARCH	MARYLAND, UNIV. OF
806978-010	NH	DEMONSTRATION	NEW HAMPSHIRE BUREAU OF OCCUP HEALTH
806980-010	CA	DEMONSTRATION	NATIONAL CITY, CITY OF
806982-010	ND	DEMONSTRATION	NORTH DAKOTA STATE DEPT. OF HEALTH
806983-010	ID	DEMONSTRATION	BOISE, CITY OF
806985-010	MA	DEMONSTRATION	BROOKLINE, TOWN OF
806987-010	OH	DEMONSTRATION	AKRON, CITY OF (HEALTH DEPT)
806988-010	NC	RESEARCH	EAST CAROLINA UNIV.
806989-010	NE	DEMONSTRATION	LINCOLN DEPT OF ENVIRONMENTAL CONTROL
806990-010	DC	RESEARCH	ASSOCIATION OF METRO SEWERAGE AGENCIES
806991-010	WA	DEMONSTRATION	WASHINGTON STATE DEPT. OF ECOLOGY
806993-010	NM	DEMONSTRATION	SANTA FE HEALTH & ENVIRONMENT DEPT

GRANT NUMBER	STATE	PROGRAM	APPLICANT
807009-010	IL	RESEARCH	ILLINOIS, UNIV. OF
807011-010	CA	RESEARCH	CALIFORNIA, UNIV. OF
807012-010	IA	RESEARCH	IOWA, UNIV. OF
807013-010	MI	RESEARCH	AMERICAN SOCIETY OF AGRI ENGRS.
807016-010	OR	RESEARCH	OREGON STATE UNIV.
807018-010	LA	RESEARCH	LOUISIANA STATE UNIV.
807025-010	FL	DEMONSTRATION	FLORIDA DEPT. OF ENVRN. REGULATION
807027-010	CA	RESEARCH	CALIFORNIA, UNIV. OF
807028-010	AZ	RESEARCH	ARIZONA STATE UNIV.
807031-010	RI	RESEARCH	RHODE ISLAND, UNIV. OF
807033-010	MN	RESEARCH	MINNESOTA, UNIV. OF
807048-010	SC	RESEARCH	SOUTH CAROLINA, UNIV. OF
807051-010	FL	RESEARCH	MIAMI, UNIV. OF (SCHOOL OF MED)
807053-010	WA	RESEARCH	WASHINGTON STATE UNIV.
807054-010	DC	RESEARCH	RESOURCES FOR THE FUTURE
807055-010	CA	DEMONSTRATION	CALIFORNIA DEPT OF HEALTH SERVICES
807060-010	MN	RESEARCH	INTERSOCIETY CONSORTIUM ON PLANT PROT
807063-010	IL	DEMONSTRATION	CHICAGO, CITY OF
807064-010	MD	RESEARCH	MARYLAND, UNIV. OF
807073-010	NC	RESEARCH	BOWMAN GRAY SCHOOL OF MEDICINE
807080-010	MA	RESEARCH	HARVARD COLLEGE
807083-010	IL	RESEARCH	CHEMICAL COATERS ASSOC.
807087-010	IA	RESEARCH	IOWA STATE UNIV.
807089-010	CO	RESEARCH	COLORADO SCHOOL OF MINES
807090-010	MI	RESEARCH	MICHIGAN, UNIV. OF
807092-010	MT	RESEARCH	MONTANA STATE UNIV.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
807097-013	IN	DEMONSTRATION	EAST CHICAGO SAN DIST
807101-010	MS	RESEARCH	MISSISSIPPI DEPT OF AGRI & COMM
807103-010	CA	RESEARCH	JOHN MUIR INST. FOR ENVRN. STUDIES
807105-010	AZ	RESEARCH	ARIZONA, UNIV. OF
807106-010	MS	RESEARCH	MISSISSIPPI STATE UNIV.
807107-010	VA	RESEARCH	VIRGINIA POLY INST & STATE UNIV.
807108-010	TX	RESEARCH	TEXAS, UNIV. OF (HLTH SCI CTR)
807110-010	CA	RESEARCH	SAN JOSE STATE UNIV. FDN
807114-010	GA	RESEARCH	GEORGIA INST. OF TECH.
807115-010	PA	RESEARCH	PENNSYLVANIA STATE UNIV.
807120-010	CA	RESEARCH	SOUTHERN CALIFORNIA, UNIV. OF
807121-010	TX	RESEARCH	SOUTHWEST RESEARCH INST.
807122-010	IA	RESEARCH	IOWA STATE UNIV.
807124-010	WA	RESEARCH	WASHINGTON, UNIV. OF
807125-010	CO	RESEARCH	DENVER, UNIV. OF
807128-010	MA	RESEARCH	HARVARD UNIV.
807130-010	MO	RESEARCH	MISSOURI, UNIV. OF
807131-010	OK	RESEARCH	ASSOC. OF CENTRAL OKLA. GOVTS.
807132-010	MI	RESEARCH	MERRILL-PALMER INST.
807133-010	MO	RESEARCH	MISSOURI, UNIV. OF (ROLLA)
807134-010	NY	RESEARCH	CORNELL UNIV.
807141-010	MA	RESEARCH	MASSACHUSETTS INST. OF TECH.
807145-010	SC	RESEARCH	CLEMSON UNIV.
807146-010	FC	RESEARCH	WORLD RADIATION CENTER, DAVOS
807148-010	MD	RESEARCH	CHESAPEAKE RESEARCH CONSORTIUM, INC.
807150-010	CA	RESEARCH	SRI INTERNATIONAL

GRANT NUMBER	STATE	PROGRAM	APPLICANT
807151-010	IL	RESEARCH	ILLINOIS, UNIV, OF (URBANA)
807160-010	LA	RESEARCH	NEW ORLEANS, UNIV, OF
807163-010	IA	RESEARCH	IOWA, UNIV, OF
807167-010	NC	RESEARCH	RESEARCH TRIANGLE INST,
807169-010	CA	RESEARCH	CALIFORNIA, UNIV, OF
807170-010	FL	RESEARCH	WEST FLORIDA, UNIV, OF
807180-010	CA	RESEARCH	CALIFORNIA STATE WATER RESOURCE CTL BD
807182-010	AR	RESEARCH	ARKANSAS, UNIV, OF
807184-010	IL	RESEARCH	TASK FORCE ON THE FUTURE OF ILLINOIS
807189-010	PA	RESEARCH	ENVIRONMENTAL RES MGMT., INC.
807191-010	CO	RESEARCH	COLORADO DEPT OF HEALTH
807192-010	MI	RESEARCH	MICHIGAN DEPT OF PUBLIC HEALTH
807202-010	CO	RESEARCH	DENVER, UNIV, OF (COLORADO SEM)
807205-010	GA	RESEARCH	GEORGIA, UNIV, OF
807211-010	CA	RESEARCH	CALIFORNIA, UNIV, OF
807215-010	MD	RESEARCH	MARYLAND, UNIV, OF
807222-010	MA	RESEARCH	MASSACHUSETTS GENERAL HOSPITAL
807223-010	CA	RESEARCH	BODEGA BAY INST OF POLL ECOLOGY
807230-010	NJ	DEMONSTRATION	TEANECK, TOWNSHIP OF
807232-010	DC	RESEARCH	NATIONAL ASSOC RETIRED TEACHERS
807240-010	MT	RESEARCH	MONTANA STATE UNIV,
807241-010	OR	RESEARCH	OREGON STATE UNIV,
807256-010	MT	RESEARCH	MONTANA STATE UNIV.
921264-010	IL	RESEARCH	CHICAGO, CITY OF

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
		A L A B A M A				
** RESEARCH **						
AUBURN UNIV. AUBURN	METABOLISM OF POLYAROMATIC HYDROCARBONS BY OXIDASES OF MARINE ORGANISMS	HOBBS, E. H.	80621302	CONT	79/09/05	$50,000
AUBURN UNIV. AUBURN	OXIDATION AND CONJUGATION OF CARCINOGENIC HYDROCARBONS IN MARINE ANIMALS	ROUSE, R.	80636802	CONT	79/07/30	$51,538
** FELLOWSHIPS **						
ETHRIDGE, S. TUSKEGEE	WATER QUALITY CONTROL	TUSKEGEE INST.	91130601	INCR	79/07/05	$1,843

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	ALASKA					
** RESEARCH **						
ALASKA, UNIV. OF FAIRBANKS	OIL SPILLS: EFFECTS ON ARCTIC LAKE SYSTEMS	BARSDATE, R.	80415203	INCR	79/07/23	$24,000
WAINWRIGHT, CITY OF WAINWRIGHT	ALASKA VILLAGE RESEARCH PROJECT	NAYAKIK, C.	80566101	INCR	79/05/23	$27,500
** FELLOWSHIPS **						
PADDOCK, SANDRA FAIRBANKS	ENVIRONMENTAL TECHNOLOGY	ALASKA, UNIV. OF	91139601	NEW	79/07/19	$6,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
ARIZONA						
** RESEARCH **						
ARIZONA STATE UNIV. TEMPE	DEVELOPMENT OF MICROEXTRACTION PROCEDURE TO ANALYZE TOTAL CARBON AND ORGANIC COMPOUNDS FROM DICHOTOM	KARASEK, F.	80702801	NEW	79/08/10	$30,000
ARIZONA, UNIV. (HLTH SCI CTR) TUCSON	POLLUTANTS, AERO-ALLERGENS AND RESPIRATORY DISEASE	LEBOWITZ, M.	80531802	CONT	79/09/11	$143,710
ARIZONA, UNIV. OF TUCSON	APPLICATION LAPIDUS-AMUNDSON SOLUTE MOVEMENT MODEL TO PREDICT SOIL ATTENNUATION OF LEACHATAGE METALS	FULLER, W	80573101	INCR	79/06/21	$10,000
ARIZONA, UNIV. OF TUCSON	FUEL NITROGEN MECHANISMS IN LAMINAR OPPOSED JET DIFFUSION FLAMES	WENDT, J. O.	80668501	NEW	79/06/21	$95,545
ARIZONA, UNIV. OF TUCSON	SOIL TREATMENT OF RESIDENTIAL FLUE GASES	BOHN, H.	80679501	NEW	79/07/23	$18,280
ARIZONA, UNIV. OF TUCSON	ANALYSES OF COSTS AND BENEFITS OF THE USE OF PESTICIDES IN ARIZONA	CORY, DENNIS	80710501	NEW	79/08/23	$135,000
** TRAINING **						
ARIZONA, UNIV. OF TUCSON	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	SIERKA, R.	90085901	INCR	79/09/05	$7,523

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
		A R K A N S A S				
** RESEARCH **						
ARKANSAS STATE GAME & FISH COMM LITTLE ROCK	AN EVALUATION OF FILTER FEEDING FISHES FOR REMOVING EXCESSIVE NUTRIENTS AND ALGAE FROM WASTEWATER	HENDERSON, S.	80545302	CONT	79/04/18	$8,465
ARKANSAS, UNIV. OF PINE BLUFF	PRESERVATION AND DETERMINATION OF CR (III) AND/OR CR (VI) IN WATERS	DUHART,B.	80587702	CONT	79/08/27	$12,533
ARKANSAS, UNIV. OF FAYETTEVILLE	CARBON AND GRAPHITE AEROSOL: CHARACTERISTICS AND POTENTIAL ENVIRONMENTAL IMPACT	TESTERMAN, M.	80718201	NEW	79/09/04	$34,443
** FELLOWSHIPS **						
DRYPULCHER, ANTHONY FAYETTEVILLE	BIOLOGY	ARKANSAS, UNIV. OF	91139501	NEW	79/07/06	$6,000
TAYLOR, LINDA FAYETTEVILLE	ENGINEERING	ARKANSAS, UNIV. OF	91147301	NEW	79/08/02	$6,000

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** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
ATMOSPHERIC RES. GROUP ALTADENA	INVESTIGATION OF THE EFFECT OF ELECTROSTATIC PRECIPITATORS, SCRUBBERS, AND BAGHOUSE ON IN-STACK OPAC	ENSOR, DAVID	80671801	NEW	79/08/03	$74,342
BAY AREA GOVTS, ASSOC. OF BERKELEY	BIOLOGICAL TREATMENT OF STORMWATER RUNOFF BY A MARSH/FLOOD BASIN	DAVIS, J.	80635701	INCR	79/07/05	$7,000
BODEGA BAY INST OF POLL ECOLOGY BERKELEY	U.S. NATIONAL MUSSEL WATCH	RISEBROUGH, R.	80722301	NEW	79/09/26	$35,000
CALIFORNIA DEPT OF HEALTH SERVICES BERKELEY	INCIDENCE OF CANCER AS RELATED TO INDUSTRIAL EMISSIONS IN CONTRA COSTA COUNTY	AUSTIN, D.	80639601	INCR	79/09/05	$65,000
CALIFORNIA DEPT OF HEALTH SERVICES SACRAMENTO	HEALTH RISKS FROM VIRUSES IN RECLAIMED WASTE WATERS	RIGGS, JOHN	80656301	NEW	79/04/02	$92,164
CALIFORNIA DEPT OF HEALTH SERVICES SACRAMENTO	SAMPLING AND ANALYTICAL PROBLEMS IN AIR POLLUTION MONITORING	WESOLOWSKI, J.	80673401	NEW	79/07/31	$94,711
CALIFORNIA DEPT. OF WATER RES. SACRAMENTO	WATER CONSERVATION AND THE DROUGHT	KOYASAKA, J.	80626201	INCR	79/06/25	$31,000
CALIFORNIA INST. OF TECH PASADENA	DEVELOPMENT OF A MATHEMATICAL MODEL ATMOSPHERIC AEROSOL DYNAMICS	SEINFELD, J.	80684401	NEW	79/09/26	$65,000
CALIFORNIA STATE WATER RESOURCE CTL BD SACRAMENTO	SEMINAR ON AQUACULTURE SYSTEMS FOR WASTEWATER TREATMENT	MARTIN, C.	80718001	NEW	79/08/31	$5,000
CALIFORNIA, STATE OF SACRAMENTO	RURAL WASTEWATER DISPOSAL ALTERNATIVES	GHIRELLI, R. P.	80594201	INCR	79/06/29	$113,133

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CALIFORNIA, UNIV. OF BERKELEY	ASBESTOS IN DOMESTIC WATER SUPPLIES & CANCER INCIDENCE IN 5 CALIFORNIA COUNTIES	COOPER, R.	80436602	INCR	79/07/17	$4,318
CALIFORNIA, UNIV. OF RIVERSIDE	MEASUREMENTS OF HELOGENATED POLLUTANTS & OTHER TRACE GASES IN THE TROPOSHERE	PITTS, JAMES	80454603	INCR	79/05/24	$64,948
CALIFORNIA, UNIV. OF RIVERSIDE	IMPACT OF OXIDANT AIR POLLUTANTS ON A WESTERN CONIFEROUS FOREST ECOSYSTEM	TAYLOR, O.	80541003	CONT	79/06/19	$80,000
CALIFORNIA, UNIV. OF IRVINE	CHEMICAL REACTIONS OF ATMOSPHERIC HALOGENATED SPECIES	MOLINA, M.	80553203	CONT	79/08/22	$75,000
CALIFORNIA, UNIV. OF IRVINE	ASSESSMENT AND IMPLICATIONS OF BACTERIAL REGROWTH AND WATER DISTRIBUTION SYSTEMS	OLSON, B.	80568002	CONT	79/07/05	$76,052
CALIFORNIA, UNIV. OF BERKELEY	PYRETHROID CHEMISTRY AND TOXICOLOGY	CASIDA, J.	80599902	CONT	79/05/18	$60,000
CALIFORNIA, UNIV. OF RIVERSIDE	INVESTIGATION OF FILTER ARTIFACTS WHEN SAMPLING AIRBORNE ORGANIC PARTICULATES	PITTS, J.	80604202	CONT	79/05/25	$68,986
CALIFORNIA, UNIV. OF LOS ANGELES	SCAVENGING OF GASES AND AEROSOL PARTICLES BY CLOUDS AND PRECIPITATION IN THE ATMOSPHERE	PRUPPACHER, H.	80625702	CONT	79/07/17	$78,431
CALIFORNIA, UNIV. OF RIVERSIDE	DEVELOPMENT OF A PROTOCOL FOR TESTING EFFECTS OF TOXIC SUBSTANCES ON PLANTS	THOMPSON, R.	80627002	CONT	79/07/20	$39,993
CALIFORNIA, UNIV. OF LOS ANGELES	PULMONARY EFFECTS OF POLLUTANTS RELATED TO ENERGY CONSUMPTION	MUSTAFA, M.	80665201	NEW	79/08/15	$75,892

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CALIFORNIA, UNIV. OF RIVERSIDE	DEVELOPMENT OF DETAILEDPROTOCOALS AND SCREENING PROCEDURES FOR ATMOSPHERIC FATE OF ORGANIC TOXIC SUB	PITTS, J.	80666101	NEW	79/07/17	$69,951
CALIFORNIA, UNIV. OF LOS ANGELES	SUMMARIES OF THE OCCURRENCE OF REDUCED VISIBILITY REGIONS AND ASSOCIATED LARGE-SCALE WEATHER SYSTEMS	EDINGER, J.	80670501	NEW	79/06/22	$48,499
CALIFORNIA, UNIV. OF RIVERSIDE	MEASUREMENT OF TRACE GASES IN THE AIR	PITTS, JAMES	80678701	NEW	79/06/21	$39,819
CALIFORNIA, UNIV. OF LA JOLLA	MUSSEL WATCH -- EXTENSION TO HISTORICAL RECORDS AND THE NOVEL POLLUTANTS	GOLDBERG, E.	80680501	NEW	79/09/26	$50,000
CALIFORNIA, UNIV. OF BERKELEY	EFFECTS OF CARBON FIBER COMPOSITE MATERIALS IN SOLID WASTE PROCESSING	TREZEK, G.	80701101	NEW	79/07/16	$99,822
CALIFORNIA, UNIV. OF BERKELEY	SOLVENT EXTRACTION OF ORGANIC PRIORITY POLLUTANTS FROM WATER	KING JUDSON, C.	80702701	NEW	79/08/02	$90,000
CALIFORNIA, UNIV. OF DAVIS	NON-POINT SOURCE SEDIMENT PRODUCTION IN THE COLUSA BASIN DRAINAGE AREA	TANJI, K.	80716901	NEW	79/08/27	$270,000
CALIFORNIA, UNIV. OF BERKELEY	ANALYSIS OF RISK/BENEFIT DECISIONS OF PESTICIDE USE AFFECTING THE ECONOMY OF CALIFORNIA AND OTHER ST	ROWE, GORDON, A.	80721101	NEW	79/08/27	$200,000
CHINO BASIN MUN. WATER DIST. CUCAMUNGA	REDUCTION OF SALINE POLLUTION OF THE GROUNDWATER ATTRIBUTED TO DAIRY OPERATIONS	FERGUSON, R.	80462002	INCR	79/09/19	$36,858
HARVEY MUDD COLLEGE CLAREMONT	ATMOSPHERIC MEASUREMENTS OF FORMALDEHYDE AND HYDROGEN PEROXIDE	KOK, GREGORY	80662901	NEW	79/06/25	$76,661

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** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
JOHN MUIR INST. FOR ENVRN. STUDIES, NAPA	REGIONAL VISIBILITY: THE COLORADO PLATEAU	WALTHER, E.	80578802	CONT	79/04/04	$23,007
			80578802	INCR	79/05/24	$2,476
			80578802	INCR	79/09/19	$37,537
JOHN MUIR INST. FOR ENVRN. STUDIES, NAPA	URBAN AND SUBURBAN RESIDENTIAL PEST MANAGEMENT DATA SYSTEMS	OLKOWSKI, W.	80710301	NEW	79/09/05	$57,340
LOS ANGELES CNTY SAN. DIST, WHITTIER	EPIDEMIOLOGIC ASSESSMENT OF THE HEALTH IMPACT ON GROUNDWATER RECHARGE	CHEN, C.	80639901	NEW	79/07/19	$145,702
SALK INSTITUTE, THE, SAN DIEGO	DEVELOPMENT OF BEHAVIORAL METHODOLOGIES FOR TOXICOLOGY: BRAIN REINFORCEMENT SYSTEMS	KOOB, GEORGE	80677701	NEW	79/08/28	$90,000
SAN JOSE STATE UNIV. FDN, SAN JOSE	EPA MUSSEL WATCH GRANTS	MARTIN, JOHN	80711001	NEW	79/09/26	$20,062
SOUTHERN CALIFORNIA, UNIV. OF, LOS ANGELES	POTENTIAL HAZARD TO MAN OF POLLUTED FISH CONSUMPTION	PUFFER, H.	80712001	NEW	79/09/06	$115,208
SRI INTERNATIONAL, MENLO PARK	ATMOSPHERIC MEASUREMENTS OF TOXIC ORGANIC CHEMICALS	SINGH, H.	80599002	CONT	79/08/28	$127,955
SRI INTERNATIONAL, MENLO PARK	THE ROLE OF AROMATIC HYDROCARBONS IN PHOTOCHEMICAL SMOG FORMATION	HENDRY, DALE	80609302	CONT	79/07/26	$74,418

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	CALIFORNIA					
** RESEARCH **						
SRI INTERNATIONAL MENLO PARK	LONG-TERM MEASUREMENTS OF SELECTED TRACE CONSTITUENTS IN THE TROPOSPHERE	SINGH, HANWANT	80672901	NEW	79/07/30	$69,385
SRI INTERNATIONAL MENLO PARK	ELECTROPHYSIOLOGIC EVALUATION OF NEUROTOXIC HAZARDS RELATED TO ENERGY	REBERT, C.	80715001	NEW	79/08/30	$82,637
STANFORD UNIV. STANFORD	INVESTIGATION OF FLUID BED COMBUSTION OF MUNICIPAL SOLID WASTE	EUSTIS, R.	80606101	INCR	79/04/24	$200,000
STANFORD UNIV. STANFORD	REMOVAL OF ORGANIC PRIORITY POLLUTANTS BY VOLATILIZATION DURING WASTEWATER TREATMENT	ROBERTS, PAUL	80663101	NEW	79/07/26	$106,000
WOODWARD CLYDE CONSULTANTS SAN FRANCISCO	WATER QUALITY AND BIOLOGICAL EFFECTS OF URBAN RUNOFF ON COYOTE CREEK	SARTOR, J.	80541801	INCR	79/04/27	$85,000
** DEMONSTRATION **						
CALIFORNIA DEPT OF HEALTH SERVICES BERKELEY	TECHNICAL ASSISTANCE TO LOCAL COMMUNITIES DEMONSTRATE MOTOR VEHICLE NOISE ENFORCEMENT TECHNIQUES	LITTLE, ROSS	80705501	NEW	79/08/28	$28,000
EAST BAY REGIONAL PARK DIST. OAKLAND	LAKE RESTORATION DEMONSTRATION PROJECT BY DREDGING & CHEMICAL TREATMENT (TEMESCAL LAKE)	TRUDEAU, R. C.	80489701	INCR	79/05/24	$71,132
MOUNTAIN VIEW, CITY OF MOUNTAIN VIEW	SHORELINE REGIONAL PARK GAS RECOVERY PROGRAM	CARLSON, JOHN A.	80339601	INCR	79/09/05	$30,000
NATIONAL CITY, CITY OF NATIONAL CITY	NATIONAL CITY COMMUNITY NOISE PROGRAM START-UP INCLUDING - IMPLEMENTATION OF NOISE ORDINANCE.	GERSCHLER, MALCOLM	80698001	NEW	79/08/28	$12,000
ORANGE CNTY. WATER DIST. FOUNTAIN VALLEY	DEMONSTRATION OF THE TECHNOLOGY FOR POTABLE REUSE OF WASTEWATER	ARGO, DAVID	80673601	NEW	79/09/06	$815,000

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	C A L I F O R N I A					
** TRAINING **						
CALIFORNIA STATE UNIV. LONG BEACH	HAZARDOUS WASTE MANAGEMENT CURRICULUM DEVELOPMENT	REED, WILLARD	90106301	NEW	79/09/25	$13,387
CALIFORNIA, UNIV. OF DAVIS	AIR POLLUTION AREA TRAINING CENTER GRANT	CHANG, DANIEL	90080002	CONT	79/09/12	$79,700
CALIFORNIA, UNIV. OF BERKELEY	SANITARY ENGINEERING TRAINING GRANT	LAWRENCE, W.	90089801	INCR	79/09/05	$7,840
CALIFORNIA, UNIV. OF DAVIS	GRADUATE TRAINING IN ENVIRONMENTAL ENGINEERING FUNDS ARE PROVIDED FOR GRADUATE SUPPORT	KRONE, R.	90091201	INCR	79/09/18	$7,180
CALIFORNIA, UNIV. OF BERKELEY	REGIONAL NOISE TECHNICAL ASSISTANCE CENTER, REGION IX	CARROLL, M.	90100501	NEW	79/08/28	$30,000
HOMITZ, ALLEN & ASSOC OAKLAND	IN THE CONDUCT OF INFILTRATION AND INFLOW STUDIES PROJECT TO TRAIN URBAN MINORITY CONSULTANT ENG	ALLEN, LAVERDA	90107501	NEW	79/09/26	$9,462
SIERRA CLUB SAN FRANCISCO	CITIZEN EDUCATION ON THE CLEAN AIR ACT AMENDMENTS	POPE, C.	90078401	INCR	79/09/19	$128,411
			90078401	INCR	79/09/26	$44,282
SIERRA CLUB SAN FRANCISCO	PUBLIC PARTICIPATION IN POPULATION COMPONENT OF EPA COST EFFECTIVENESS GUIDELINES	KUNOFSKY, J.	90101801	NEW	79 /07 /09	$4,917
SIERRA CLUB SAN FRANCISCO	CITIZEN EDUCATION ON TOXIC SUBSTANCES	KUNOFSKY, J.	90102901	NEW	79/09/05	$46,894

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	C A L I F O R N I A					
** TRAINING **						
SOUTHERN CALIFORNIA, UNIV. OF LOS ANGELES	ENVIRONMENTAL MANAGEMENT INSTITUTE	BARBARO, G.	90090001	INCR	79/09/18	$73,100
STANFORD UNIV. STANFORD	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	MC CARTY, PERRY L	90088001	INCR	79/08/30	$9,066
** FELLOWSHIPS **						
DURANT, J. SACRAMENTO	CIVIL ENVIRONMENTAL ENGINEERING	CALIFORNIA STATE UNIV.	91146701	NEW	79/08/28	$3,000
LEWIS, WILLIAM SACRAMENTO	ENVIRONMENTAL ENGINEERING	CALIFORNIA STATE UNIV.	91141601	NEW	79/08/31	$2,800
SALTER, MICHAEL SAN BERNARDINO	WASTEWATER TREATMENT	SAN BERNARDINO VALLEY	91141501	NEW	79/08/01	$1,400
			91141501	INCR	79/09/05	$473
SCHAFFER, THOMAS LOS ANGELES	STATE AGENCY FELLOWSHIP	LOYOLA MARYMOUNT UNIV.	91130501	INCR	79/08/31	$3,609

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	COLORADO					
** RESEARCH **						
COLORADO DEPT OF HEALTH DENVER	AREAWIDE APPLICATION OF CCP TECHNICAL ASSISTANCE TO STATE ENFORCEMENT PROGRAMS	MATTER, F.	80719101	NEW	79/09/12	$175,000
COLORADO SCHOOL OF MINES GOLDEN	SUB-MICRON SIZE RANGE EXTENSION OF OPTICAL PARTICLE COUNTER	BROWN, JAMES	80708901	NEW	79/09/26	$25,000
COLORADO STATE UNIV. FORT COLLINS	A NUMERICAL INVESTIGATION ON THE ROLE OF VARIOUS HOLOCARBON CHEMICAL REACTIONS ON STRATOSPHERIC	CRUTZEN	80492103	INCR	79/09/05	$61,668
COLORADO STATE UNIV. FORT COLLINS	INTERACTIONS OF METAL IONS WITH ORGANIC LIGANDS IN NATURAL WATERS	NATUSCH, D. F.	80518303	CONT	79/06/28	$65,391
COLORADO STATE UNIV. FORT COLLINS	EFFECTS CONTROLLED SULFUR DIOXIDE FUMAGATION PRIMARY&INVERTEBRATE CONSUMERS IN MIXED PRAIRIE ECOSYS	DODD, J. L.	80532903	CONT	79/06/29	$164,761
COLORADO STATE UNIV. FORT COLLINS	CHEMICAL AND BIOLOGICAL CHARACTERIZATION OF OIL SHALE PROCESSING AND COAL CONVERSION EFFLUENTS	SKOGERBOE, R.	80605102	CONT	79/07/20	$134,607
COLORADO STATE UNIV. FORT COLLINS	APPLICATION OF MULTIPLE WAVELENGTH SPECTROSCOPY TO METABOLIC STUDIES AND MULTI-ELEMENTAL WATER ANALY	O'KEEFE, R.	80609401	INCR	79/06/25	$25,750
COLORADO STATE UNIV. FORT COLLINS	PLANNING MODEL FOR SELECTION OF BEST MANAGEMENT PRACTICE	SIMONS, D.	80630501	INCR	79/08/03	$25,000
COLORADO STATE UNIV. FORT COLLINS	THE DESIGN, FABRICATION AND TESTING OF AMBIENT AEROSOL SAMPLER INLETS	WEDDING, J.	80649101	NEW	79/04/16	$30,000
COLORADO STATE UNIV. FORT COLLINS	DETERMINATION OF SAMPLING EFFECTIVENESS OF SELECTED DICHOTOMOUS AMBIENT AEROSOL	WEDDING, J.	80659501	NEW	79/04/27	$20,304

COLORADO

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
COLORADO STATE UNIV. FORT COLLINS	FIELD STUDIES OF BIOGENIC SULFUR GASES AND PARTICULATES IN INLAND AND COASTAL WETLANDS	NATUSCH, D.	80662801	NEW	79/07/11	$76,299
			80662801	INCR	79/09/05	$15,000
COLORADO STATE UNIV. FORT COLLINS	REFINEMENT, VERIFICATION AND APPLICATION OF A LONG-RANGE TRANSPORT MODEL OF SO2 AND SULFATE	REITER, ELMAR	80665801	NEW	79/06/19	$60,000
COLORADO STATE UNIV. FORT COLLINS	COOPERATIVE EPIDEMIOLOGIC PESTICIDE STUDIES PROGRAM	SAVAGE, E.	80687501	NEW	79/04/27	$651,971
COLORADO, UNIV. OF DENVER	CRITICAL REV. & EVAL. OF RES. ON THE IMPACT OF ENERGY-RELATED	CHAPELL, W.	80592101	INCR	79/05/24	$50,000
COLORADO, UNIV. OF BOULDER	CHEMISTRY OF RENOVATED WASTEWATER	CHAPPELL, W.	80651701	NEW	79/05/09	$52,910
COLORADO, UNIV. OF DENVER	EVALUATION OF RISKS, ENERGY COSTS, AND ASSOCIATED ECONOMIC FACTORS OF WASTEWATER DISINFECTION ALTERN	CHAPPELL, W.	80658601	NEW	79/07/20	$64,000
			80658601	INCR	79/09/25	$85,999
DENVER URBAN DRAINAGE & FLOOD DENVER	PREPARE GUIDELINES FOR WET-WEATHER MONITORING	TUCKER, L.	80670401	NEW	79/06/25	$40,000
DENVER, UNIV. OF DENVER	TRANSFER AND UTILIZATION OF PARTICULATE CONTROL TECHNOLOGY	VENDITTI, F.	80572503	CONT	79/08/28	$49,980

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	COLORADO					
** RESEARCH **						
DENVER, UNIV. OF DENVER	INVESTIGATIONS OF POINT AND NON-POINT SOURCE EMISSIONS THROUGH CONTROLLED AIRBORNE SAMPLING	ARMSTRONG, J.	80592602	CONT	79/09/06	$97,586
DENVER, UNIV. OF DENVER	OPERATING CHARACTERISTICS OF ELECTROSTATIC PRECIPITATORS AT ELEVATED TEMPERATURE AND HIGH PRESSURE	RINARD, G.	80593902	CONT	79/05/24	$99,112
DENVER, UNIV. OF DENVER	OIL SHALE SYMPOSIUM: SAMPLING, ANALYSIS & QUALITY ASSURANCE	PRESSY,R	80615601	INCR	79/06/25	$22,000
DENVER, UNIV. OF DENVER	PRECONCENTRATION METHODS FOR TRACE ELEMENT DETERMINATION	LEYDEN, D.	80652001	NEW	79/04/16	$75,119
DENVER, UNIV. OF DENVER	GROUNDWATER/MINERALOGY RELATIONSHIPS FOR IN SITU OIL SHALE RETORING	FITZPATRICK, J.	80712501	NEW	79/09/19	$27,000
DENVER, UNIV. OF (COLORADO SEM) DENVER	WHO'S WHO IN THE FEDERAL GOVERNMENT'S R, D&D OIL SHALE PROGRAM	WESTCOTT, P.	80720201	NEW	79/09/05	$15,390
** DEMONSTRATION **						
COLORADO STATE DEPT. OF HEALTH DENVER	DEVELOPMENT OF STATE NOISE CONTROL PROGRAM, A COOPERATIVE AGREEMENT (TYPE F)	HAZLE, A.	80693701	NEW	79/09/04	$27,488
DENVER BD. OF WATER COMMISSIONERS DENVER	POTABLE WASTE REUSE DEMONSTRATION PROJECT	MILLER, K.	80682101	NEW	79/05/14	$7,000,000
THORNTON, CITY OF THORNTON	THORNTON NOISE-CONTROL ENFORCEMENT PROGRAM: A COOPERATIVE AGREEMENT	BALDWIN,JACK	80692101	NEW	79/08/28	$7,600
** TRAINING **						
AMERICAN WATER WORKS ASSOC DENVER	OPERATION AND MAINTENANCE OF WATER SUPPLY FACILITIES ON INDIAN LANDS: MATERIALS DEVELOPMENT	HASKINS, B.	90102701	NEW	79/09/26	$119,850

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

COLORADO

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
AMERICAN WATER WORKS ASSOC. DENVER	TECHNICAL ASSISTANCE PROJECT ON SAFE DRINKING WATER ACT	HASKINS, B.	90073301	INCR	79/06/19	$21,184
COLORADO COALITION FOR FULL EMPLOY DENVER	TRAINING PROGRAM FOR CETA WORKERS	KAHN, ROGER	90101501	NEW	79/08/20	$9,933
COLORADO STATE UNIV. FT. COLLINS	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	MORRISON, S.	90085401	INCR	79/09/07	$7,034
COLORADO STATE UNIV. FORT COLLINS	NATIONAL CENTER FOR MOTOR VEHICLE EMMISSION CONTROL	MANESS,MT	90088501	INCR	79/06/21	$53,158
COLORADO STATE UNIV. FORT COLLINS	CONTINUATION OF THE NATIONAL CENTER FOR VEHICLE EMISSIONS CONTROL AND SAFETY	HAYES, B.	90088502	CONT	79/08/06	$500,700
			90088502	INCR	79/09/26	$241,358
COLORADO STATE UNIV. FORT COLLINS	ENVIRONMENTAL WORKFORCE PLANNING & COORDINATION PROJECT	HAYES, B.D.	90102301	NEW	79/08/10	$113,482
COLORADO STATE UNIV. FORT COLLINS	PUBLIC EDUCATION PROGRAM ON LAND TREATMENT TECHNOLOGIES	EVANS, N.	90106001	NEW	79/09/26	$200,000
COLORADO, UNIV. OF BOULDER	NATIONAL NOSIE TECHNICAL ASSISTANCE CENTER, REGION VIII	FOCH, JAMES	90100601	NEW	79/08/28	$30,000
NATIONAL CONFERENCE STATE LEGISLATORS DENVER	STATE LEGISLATIVE SOLID WASTE PROJECT	HOGAN,RON	90096001	NEW	79/07/17	$73,424

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	COLORADO					
** TRAINING **						
NATIONAL CONFERENCE STATE LEGISLATORS DENVER	STATE LEGISLATIVE IMPLEMENTATION OF WATER QUALITY MANAGEMENT PROGRAM	REUSS, JOHN W.	90096201	NEW	79/08/02	$82,766
NATIONAL CONFERENCE STATE LEGISLATORS DENVER	STATE LEGISLATIVE VEHICLE INSPECTION/MAINTENANCE PROJECT	REUSS, JOHN W.	90096801	NEW	79/06/21	$43,252
ROMCOE DENVER	COMMUNITY PROGRAMS FOR ENVIRONMENTAL PROBLEM SOLVING -- CONSTITUENCY DEVELOPMENT	CARPENTER, SUSAN	90102101	NEW	79/08/20	$17,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

C O N N E C T I C U T

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
SIAM INST FOR MATH AND SOCIETY (SIMS) NEW CANNAN	STATISTICS & ENVIRONMENTAL HEALTH	THOMSEN, D.	80493203	INCR	79/07/10	$80,000
SIAM INST. FOR MATH & SOCIETY NEW CANAAN	SIMS 5 YEAR STUDY: STATISTICS & ENVIRONMENTAL FACTORS IN HEALTH	THOMSEN, D.	80657201	NEW	79/05/18	$65,000
YALE UNIV. NEW HAVEN	LASER RAMAN MONITORING OF SULFURIC ACID, SULFATES, SULFUR TRIOXIDE, AND SULFUR DIOXIDE IN STACK EMIS	CHANG, RICHARD	80545802	CONT	79/04/27	$40,350

** DEMONSTRATION **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
CONNECTICUT DEPT OF ENVRN PROT HARTFORD	COMMUNITY NOISE ABATEMENT PROGRAM	WILCOX, J.	80689701	NEW	79/09/04	$35,644
STAMFORD, CITY OF STAMFORD	NOISE CONTROL & ABATEMENT DEVELOPMENT PROJECT, CITY OF STAMFORD	GOFSTAIN, RALPH	80690001	NEW	79/08/28	$12,170

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
HARTFORD, UNIV. OF WEST HARTFORD	REGINAL TECHNICAL ASSISTANCE CENTER	HEMOND, C.	90099001	NEW	79/08/28	$30,000

** FELLOWSHIPS **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
LEAVITT, GARY STORRS	ENVIRONMENTAL ENGINEERING	CONNECTICUT, UNIV. OF	91142501	NEW	79/08/13	$1,068
PALMISCIANO, GEORGE G. STORRS	CIVIL & ENVIRONMENTAL ENGINEERING	CONNECTICUT, UNIV. OF	91147101	NEW	79/08/13	$1,338
PIZZUTO, ERNEST NEW HAVEN	NATURAL RESOURCE MANAGEMENT	SOUTHERN CONNECTICUT	91141101	NEW	79/08/10	$2,745

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APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
		DELAWARE				
** RESEARCH **						
DELAWARE, UNIV. OF NEWARK	A BIOASSAY APPROACH TO IDENTIFYING WETLAND PLANTS	SOMERS, F.	80682401	NEW	79/07/17	$62,089
** DEMONSTRATION **						
DELAWARE DEPT OF NAT RES & ENV CONTROL DOVER	COOPERATIVE AGREEMENT BETWEEN DNRESC AND U.S. EPA NOISE OFFICE	FRENCH, R.	80694901	NEW	79/09/18	$25,000
E.I. DUPONT DE NEMOURS & CO., INC. WILMINGTON	CHAMBERS WORKS WW TREATMENT PLANT-REMOVAL OF ORGANIC & ORGAN O-NITROGEN COMPUNDS FROM WW.	HEATH, H.	80494303	INCR	79/06/28	$76,000
** FELLOWSHIPS **						
MARTIN, JOYCE NEWARK	BIOLOGY	DELAWARE, UNIV. OF	91126801	INCR	79/06/22	$2,780

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
DISTRICT OF COLUMBIA						
** RESEARCH **						
UNITED STATES DEPT. OF AGRICULTURE WASHINGTON	PLANNING & CONDUCTING THE IX INTERNATIONAL CONGRESS OF PLANT PROTECTION	TWEEDY, B.	80541701	INCR	79/08/02	$15,000
** DEMONSTRATION **						
WASHINGTON METRO COUNCIL OF GOVT WASHINGTON	NOISE/COOPERATIVE AGREEMENT	BATES,D	80678301	NEW	79/08/28	$42,750
** TRAINING **						
AMERICAN INST HUM RES EDUC & TRAINING WASHINGTON	MUNICIPAL SOLID WASTE MANAGEMENT PROJECT	FLETCHER, J.	90094501	NEW	79/04/16	$86,869
AMERICAN INST OF RES, EDUC, & TRAINING WASHINGTON	LOCAL GOVERNMENT EDUCATION PROJECT ON THE SAFE DRINKING WATER ACT	FLETCHER, J.	90097401	NEW	79/07/17	$63,904
AMERICAN PLANNING ASSOC. WASHINGTON	ASPEN CONFERENCE ON THE FUTURE OF PERSONAL TRAVEL IN THE UNITED STATES	STOCKWELL, M.	90094301	NEW	79/04/16	$24,000
AMERICAN PUBLIC HEALTH ASSOC. WASHINGTON	THREE YR PUBLIC HEALTH EDUC/TRAINING PROG/ OFFICE OF SOLID WASTE	BRODBECK, SEIKO	90092901	INCR	79/08/09	$25,123
AMERICAN PUBLIC HEALTH ASSOC. WASHINGTON	DEVELOPMENT OF A MODEL WORKSHOP AND OTHER ACTIVITIES RELATED TO THE IMPLEMENTATION OF THE SAFE DRINK	BRODBECK, SEIKO	90096701	NEW	79/08/10	$27,448
AMERICAN PUBLIC WORKS ASSOC. WASHINGTON	INCREASED SOLID WASTE MGMT. SERV. TO STATE & LOCAL AGENCIES	BUNN, J.	90068202	INCR	79/08/31	$10,000
APPROPRIATE COMMUNITY TECH F/C INC. WASHINGTON	ACT '79 FAIR/CONFERENCE	DUBERSTEIN, M.	90096301	NEW	79/04/12	$10,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

DISTRICT OF COLUMBIA

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
CITIZENS PROGRAM FOR CHESAPEAKE BAY WASHINGTON	TO PROVIDE TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL AND WATER SUPPLY	HAGERMAN, G.	90087901	INCR	79/09/26	$129,677
CONSERVATION FDN. WASHINGTON	TRAINING CONFERENCES FOR THE OFFICE OF TOXIC SUBSTANCES	DAVIS, J. C.	90062903	CONT	79/08/23	$75,142
CONSERVATION FDN. WASHINGTON	CONSTRUCTING MUN. SEWAGE TREATMENT FACILITIES	RASTATTER, C.	90070501	INCR	79/04/02	$6,297
CORPORATION FOR ENTERPRISE DEVEL WASHINGTON	ENVIRONMENTAL ENTERPRISE DEVELOPMENT BRIEFINGS	FRIEDMAN, R.	90096501	NEW	79/05/23	$6,000
ENVIRONMENTAL ACTION FDN WASHINGTON	NEWSLETTER ON TOXICS	SANDALLS, M.	90103001	NEW	79/09/04	$25,000
ENVIRONMENTALISTS FOR FULL EMPLOYMENT WASHINGTON	SEMINAR ON ENERGY PRICING AND EQUITY AND THE ENVIRONMENT	GROSSMAN, R.	90097101	NEW	79/07/30	$6,000
INSTITUTE FOR LOCAL SELF RELIANCE WASHINGTON	COMMUNITY PARK GARDENING AND RECYCLING IMPLEMENTATION AND EDUCATION PROGRAM	SELDMAN, NEIL	90095101	NEW	79/05/18	$5,000
INTERNATIONAL CITY MANAGEMENT ASSOC. WASHINGTON	COMPREHENSIVE SOLID WASTE TECHNICAL ASSISTANCE PROGRAM FOR LOCAL GOVERNMENT	HART, C.	90094401	NEW	79/04/16	$94,769
			90094401	INCR	79/08/28	$15,000
INTERNATIONAL CITY MANAGEMENT ASSOC. WASHINGTON	ICMA WATER QUALITY PROJECT	JACKSON, L.	90095601	NEW	79/08/01	$89,927

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
D I S T R I C T O F C O L U M B I A						
** TRAINING **						
LEAGUE OF WOMEN VOTERS EDUCATION FUND WASHINGTON	PUBLIC EDUCATION ON RESOURCE CONSERVATION AND RECOVERY	MESSA, S.	90093301	INCR	79/04/18	$4,412
LEAGUE OF WOMEN VOTERS EDUCATION FUND WASHINGTON	SAFE DRINKING WATER INFORMATION PROJECT		90095401	NEW	79/08/01	$59,596
MUNICIPAL FINANCE OFFICERS ASSOC. WASHINGTON	FINANCIAL MANAGEMENT ASSISTANCE PROJECT	PETERSEN, J.	90097601	INCR	79/09/26	$300,045
NATIONAL ASSOC OF REG COUNCILS WASHINGTON	REGIONAL COUNCILS AND SOLID WASTE MANAGEMENT	MICHEAL PAWLUKIEWIEZ	90105401	NEW	79/08/31	$65,000
NATIONAL ASSOC. OF CONSERVATION DIST. WASHINGTON	EDUCATION & TECHNICAL TRANSFER FOR IMPLEMENTING NPS PHASE OF 208 (208 NPS IMPLEMENTATION PROJECT)	WILLIAMS, R.	90074402	INCR	79/06/28	$3,628
NATIONAL ASSOC. OF CONSERVATION DIST. WASHINGTON	EDUCATIONAL AND TECHNICAL TRANSFER FOR IMPLEMENTING NPS PHASE OF 208 (208 NPS IMPLEMENTATION PROJECT	WILLIAMS, R.	90095701	NEW	79/09/26	$136,970
NATIONAL ASSOC. OF COUNTIES WASHINGTON	PROPOSAL TO ASSIST WITH IMPLEMENTATION OF CLEAN AIR ACT AMENDMENTS OF 1977	WEAVER, R.	90075701	INCR	79/09/04	$60,000
			90075701	INCR	79/07/17	$50,000
NATIONAL ASSOC. OF COUNTIES RES. FDN. WASHINGTON	COUNTIES AND SOLID WASTE MANAGEMENT	WEAVER, R.	90094701	NEW	79/04/10	$98,496
NATIONAL ASSOC. OF COUNTIES RES., INC. WASHINGTON	WATER QUALITY	WEAVER, R.	90105901	NEW	79/08/24	$70,345

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

DISTRICT OF COLUMBIA

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
NATIONAL ASSOC. OF REGIONAL COUNCILS WASHINGTON	IMPLEMENTATION OF THE CLEAN AIR ACT	WEBSTER, M.	90076301	INCR	79/09/25	$30,000
NATIONAL ASSOC. OF REGIONAL COUNCILS WASHINGTON	ASSESSING WATER QUALITY MANAGEMENT CONTINUING PLANNING	PAWLUKIEWICZ, M.	90104701	NEW	79/09/26	$11,753
NATIONAL ASSOC. OF REGIONAL COUNTIES WASHINGTON	IMPLEMENTATION OF THE CLEAN AIR ACT	WEBSTER, R.	90076301	INCR	79/04/16	$62,655
NATIONAL ASSOCIATION OF NEIGHBORHOODS WASHINGTON	QUIET NEIGHBORHOOD SELF-HELP PROJECT	KOTLER, M.	90100301	NEW	79/08/28	$35,474
NATIONAL DEMONSTRATION WATER PROJECT WASHINGTON	TRAINING WATER/SEWER OPERATORS: AN NDWP DEMONSTRATION PROJECT	BAIR, JONATHAN	90096901	NEW	79/04/18	$239,226
NATIONAL GOVERNORS' ASSOC. WASHINGTON	STATE INITIATIVES TOWARD IMPLEMENTATION OF THE RESOURCE CONSERVATION & RECOVERY ACT OF 1976	GRASSO, R.	90068602	INCR	79/08/27	$36,675
NATIONAL INST OF GOV'T PURCHASE WASHINGTON	BUY QUIET PROGRAM	SPANGLER, L.	90104401	NEW	79/08/06	$60,000
NATIONAL NEWSPAPER PUBLISHERS ASSOC. WASHINGTON	ENVIRONMENTAL WORKSHOPS	BRISCUE, S.	90084301	INCR	79/09/19	$6,000
NATIONAL WILDLIFE FEDERATION WASHINGTON	PUBLIC PARTICIPATION IN TOXIC SUBSTANCES CONTROL	KAMLET, K.	90090501	INCR	79/09/04	$5,000
NATIONAL WILDLIFE FEDERATION WASHINGTON	TRAINING PROGRAM FOR CITIZEN PARTICIPATION IN WATER POLLUTION CONTROL PLANNING	SULLIVAN, P.	90096101	NEW	79/07/30	$7,040

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
D I S T R I C T O F C O L U M B I A						
** TRAINING **						
NATURAL RESOURCES DEFENSE COUNCIL, INC WASHINGTON	PROJECT ON TOXIC POLLUTANT REGULATION	BANKS, J.	90092101	INCR	79/08/15	$20,000
PRERETIREMENT PLANNING CENTER WASHINGTON	SENIOR ENVIRONMENTAL EMPLOYMENT TRAINING ASSISTANCE PROGRAM	SEUM, JACK	90104601	NEW	79/09/26	$50,000
RIVER CONSERVATION FUND WASHINGTON	NATIONAL CONFERENCE ON RIVERS	BROWN, H.	90096401	NEW	79/05/18	$6,000
URBAN ENVRN. CONFERENCE WASHINGTON	REGIONAL WORKSHOPS TO INC REASE PUBLIC PARTICIPATION OF LABOR MINORITY AND ENVIRONMENTAL ORGANIZATIO	COLING, G.	90082301	INCR	79/09/26	$45,000
URBAN SCIENTIFIC & EDUCATIONAL RES. WASHINGTON,	WASTEWATER REDUCTION TRAINING PROGRAM	SPENCER, K.	90089201	INCR	79/09/04	$50,081
** FELLOWSHIPS **						
BAILEY, WALTER WASHINGTON	CIVIL ENGINEERING	GEORGE WASHINGTON UNIV	91139301	NEW	79/08/30	$3,197

F L O R I D A

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
CENTRAL FLORIDA, UNIV. OF ORLANDO	URBAN STORMWATER & COMBINED WSEWER OVERFLOW IMPACT ON RECEIVING WATER BODIES	YOUSEF, YOUSEF	80671501	NEW	79/07/26	$5,000
FLORIDA A&M UNIV. TALLAHASSEE	THE EXTENT OF EXPOSURE TO MIGRANT WORKERS TO PESTICIDES AND PESTICIDE RESIDUES	OWENS, CLARENCE	80671901	NEW	79/05/14	$99,999
FLORIDA STATE UNIV. TALLAHASSEE	EFFECTS OF DRILLING MUD ON MARINE ORGANISMS	WHITE, D. C.	80613001	INCR	79/05/24	$50,337
FLORIDA STATE UNIV. TALLAHASSEE	EFFECTS OF DRILLING MUD CONSTITUENTS ON THE SEDIMENTATRY MICROFLORA AND THE BASE OF THE MARINE	WHITE, D.	80614302	CONT	79/07/30	$99,892
FLORIDA STATE UNIV. TALLAHASSEE	AMBIENT AEROSOL ANALYSIS NEAR COAL GASIFICATION PLANT	WINCHESTER, J.	80665101	NEW	79/04/30	$25,000
FLORIDA STATE UNIV. TALLAHASSEE	AEROSOL SULFUR TRANSPORT STUDIES	WINCHESTER, J.	80669301	NEW	79/08/13	$80,000
FLORIDA, UNIV. OF GAINESVILLE	CHEMICAL CONTROL OF WATER QUALITY IN DISTRIBUTION SYSTEMS	SINGLEY, J. E.	80540003	CONT	79/08/27	$89,037
FLORIDA, UNIV. OF GAINESVILLE	THE ECOLOGICAL IMPACT OF INTEGRATED CHEMICAL AND BIOLOGICAL AQUATIC WEED CONTROL	SHIREMAN, J.	80549702	CONT	79/07/17	$153,542
			80549702	INCR	79/09/05	$8,280
FLORIDA, UNIV. OF GAINESVILLE	AN IN-STOCK DIFFUSION CLASSIFIER FOR AEROSOL MASS DISTRIBUTION MEASUREMENT	LUNDGREN, D.	80576202	CONT	79/06/25	$40,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	FLORIDA					
** RESEARCH **						
FLORIDA, UNIV. OF GAINESVILLE	ECOLOGICAL ADAPTATIONS BY CYPRESS SWAMPS TO TREATED SEWAGE	ODUM, H.	80628501	NEW	79/08/03	$18,577
FLORIDA, UNIV. OF GAINESVILLE	INACTIVATION OF ENTERIC VIRUSES DURING AEROBIC DIGESTION OF SLUDGE	FARRAH, S.	80629001	NEW	79/04/24	$113,043
FLORIDA, UNIV. OF GAINESVILLE	IMPACT OF STRATOSPHERIC OZONE DEPLETION UPON TROPOSPHERIC PHOTOCHEMISTRY AND CONSEQUENTIAL IMPACTS	GREEN, A.	80637501	NEW	79/04/27	$50,000
FLORIDA, UNIV. OF LAKE ALFRED	EXPOSURE OF AGRICULTURAL LABOR TO PESTICIDES	NIGG, HERBERT	80647401	NEW	79/04/10	$60,560
FLORIDA, UNIV. OF GAINESVILLE	MODELING OF FINE SEDIMENT TRANSPORT PROCESSES FOR TRACKING POLLUTANT MOVEMENT	MEHTA, A. J.	80668401	NEW	79/09/12	$35,776
FLORIDA, UNIV. OF GAINESVILLE	MOBILE SAMPLING SYSTEM FOR LARGE ATMOSPHERIC PARTICLES	LUNDGREN, D.	80671401	NEW	79/08/31	$66,807
FLORIDA, UNIV. OF GAINESVILLE	ASSESMENT OF PESTICIDE LEACHING PROTOCALS FOR USE WITH TOXIC ORGANIC SUBSTANCES	DAVIDSON, J.	80674401	NEW	79/07/23	$68,991
MIAMI, UNIV. OF MIAMI	ISOLATION AND STUDY OF CHLORO-ORGANICS RESULTING FROM CHLORINATION OF SEAWATER	CARPENTER, J.	80389303	INCR	79/06/28	$50,000
			80389303	INCR	79/09/05	$32,332
MIAMI, UNIV. OF MIAMI	SOUTHEAST FLORIDA OCEAN OUTFALL STUDY	SNEDAKER, S.	80630701	INCR	79/09/05	$40,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

FLORIDA

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
MIAMI, UNIV. OF CORAL GABLES	CARDOVASCULAR TESTING OF FETUSES AND NEWBORNS PRENATALLY EXPOSED TO PESTICIDES	GRABOWSKI, C.	80672201	NEW	79/07/23	$45,000
MIAMI, UNIV. OF (SCHOOL OF MED) CORAL GABLES	EPIDEMIOLOGIC STUDIES PROGRAM	DUNCAN, R.	80705101	NEW	79/09/06	$577,800
SOUTH FLORIDA, UNIV. OF TAMPA	PRECONCENTRATION AND ANALYSIS OF AMMONIA AND AMINES IN AIR	BRAMAN, R.	80668801	NEW	79/06/21	$30,000
WEST FLORIDA, UNIV. OF PENSACOLA	CYCLING OF ZENOBIOTICS THROUGH ESTUATINE AND MARINE SEDIMENTS	D'ASARO, CHARLES	80445802	INCR	79/08/01	$25,774
WEST FLORIDA, UNIV. OF PENSACOLA	TOXIC, SUBLETHAL & LATENT EFFECTS OF SELECTED PETROLEUM HYDROCARBONS & BARIUM SULFATE ON MARINE ORGA	RANGA RAO, K.	80454102	INCR	79/05/24	$34,947
WEST FLORIDA, UNIV. OF PENSACOLA	BEHAVIORAL ASSAYS FOR THE EFFECTS OF DRILLING MUD ON MARINE ANIMALS	HAMILTON, P.	80612101	INCR	79/05/24	$11,997
WEST FLORIDA, UNIV. OF PENSACOLA	STATISTICAL DESIGN AND ANALYSIS OF CHESAPEAKE BAY & GULF BREEZE ERL DATA	OGLESBY, J.	80717001	NEW	79/09/19	$91,115

** DEMONSTRATION **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
FLORIDA DEPT OF ENVRN REGULATION TALLAHASSEE	THIS PROJECT INVOLVES STORMWATER ABATEMENT AND IN-LAKE-TREATMENT	TOLMAN, A.	80691501	NEW	79/09/26	$217,000
FLORIDA DEPT. OF ENVRN. REGULATION TALLAHASSEE	COOPERATIVE AGREEMENT TO ASCERTAIN ASSISTANCE NEEDS OF FLORIDA COMMUNITIES RELATING TO NOISE CONTROL	BAKER, RALPH	80702501	NEW	79/08/28	$45,000
REEDY CREEK IMPROVEMENT DIST LAKE BUENA VISTA	WATER HYACINTH WASTEWATER TREATMENT SYSTEM	MOSES, THOMAS	80565502	INCR	79/09/12	$171,900

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	F L O R I D A					
** DEMONSTRATION **						
			80565502	CONT	79/04/18	$103,660
** TRAINING **						
BROWARD CNTY ENVIRONMENTAL COALITION FT. LAUDERDALE	REGIONAL TOXIC PUBLIC PARTICIPATION PROGRAM IN BROWARD AND PALM BEACH COUNTIES, FLORIDA	BLACKWELDER, B.	90103601	NEW	79/08/31	$12,500
FLORIDA CONSERVATION FDN., INC. WINTER PARK	REGIONAL TOXIC PUBLIC PARTICIPATION PROGRAM IN FLORIDA	PARTINGTON, W.	90103401	NEW	79/08/31	$5,000
FLORIDA, UNIV. OF GAINESVILLE	GRADUATE TRAINING IN AIR POLLUTION	URONE, PAUL	90079902	CONT	79/07/30	$63,955
FRIENDS OF THE EVERGLADES, INC. COCONUT GROVE	REGIONAL TOXIC SUBSTANCES PUBLIC PARTICIPATION PROGRAM IN DADE COUNTY, FLORIDA	PODGOR, J.	90103701	NEW	79/09/07	$12,500
** FELLOWSHIPS **						
CEVELIN, JUDITH ORLANDO	ENVIRONMENTAL ENGINEERING	CENTRAL FLORIDA, UNIV	91140301	NEW	79/07/23	$2,728
JOHNSTON, SAMUEL TALLAHASSEE	MS/ENV. SCI.	FLORIDA STATE UNIV.	91115901	INCR	79/08/20	$2,878
LYNCH, THOMAS TALLAHASSEE	URBAN AND ENVIRONMENTAL PLANNING	FLORIDA STATE UNIV.	91141301	NEW	79/08/28	$803
MCGINNIS, M. TALLAHASSEE	GOVERNMENT PUBLIC ADMINISTRATION ENVRN POLICY	FLORIDA STATE UNIV.	91130801	INCR	79/07/20	$2,832

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	F L O R I D A					
** FELLOWSHIPS **						
MORA, JEFFREY ORLANDO	ENVIRONMENTAL CONTR	CENTRAL FLORIDA, UNIV.	91136601	NEW	79/07/05	$1,596

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
G E O R G I A						
** RESEARCH **						
EMORY UNIV. SCHOOL OF MEDICINE ATLANTA	EFFECTS OF VARYING DOSES OF UV ON MAMMALIAN SKIN: SIMULATION OF DECREASING STRATOSPHERIC OZONE	WILLIS, I.	80639201	INCR	79/08/31	$42,500
FORT VALLEY STATE COLLEGE FORT VALLEY	PATENTIAL BENEFICAL USE OF INDUSTRIAL WASTE HEAT FOR GREENHOUSE PRODUCTION OF BEDDING PLANTS	GRUMBLY, I.	80449902	INCR	79/05/24	$13,489
GEORGIA INST OF TECH ATLANTA	CONTROLLED LANDFILL STABILIZATION WITH LEACHATE RECYCLE	POHLAND, F.	80395302	INCR	79/07/05	$16,100
GEORGIA INST. OF TECH ATLANTA	FATE OF HEAVY METALS DURING LANDFILL STABILIZATION OF SOLID WASTE MATERIALS WITH LEACHATE RECYCLE	POHLAND, F.	80649801	NEW	79/05/09	$61,500
GEORGIA INST. OF TECH. ATLANTA	ANALYSIS OF MATHEMATICAL MODELS FOR POLLUTANT TRANSPORT AND DISSIPATION	AMES, WILLIAM	80711401	NEW	79/09/18	$37,299
GEORGIA STATE UNIV. ATLANTA	ESTUARINE SURFACE FILMS	AHEARN, DONALD	80447702	INCR	79/08/31	$5,558
GEORGIA, UNIV. OF ATHENS	POTENTIAL IMPACT OF ACIDIFIED PRECIPITATION ON ELEMENT CYCLING AND PRODUCTION IN SOUTHERN APPALHIAN	MONK, C.	80530501	INCR	79/07/20	$22,425
GEORGIA, UNIV. OF ATHENS	SIUMULATION MODELING OF A COASTAL SALT MARSH	WIEGERT, R.	80659201	NEW	79/07/10	$77,541
GEORGIA, UNIV. OF ATHENS	ECONOMIC ANALYSIS OF PESTICIDE USE	ALLISON, JOHN R.	80720501	NEW	79/09/05	$165,000
MOREHOUSE COLLEGE ATLANTA	DEVELOPMENT OF AN IN VITRO MUTAGENESIS TEST SYSTEM	BENDER, J.	80597201	INCR	79/06/25	$4,270

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
		G E O R G I A				
** RESEARCH **						
			80597202	CONT	79/09/25	$76,684
SAVANNAH STATE COLLEGE SAVANNAH	NUTRIENT RECYCLING AND TOXIC ELEMENTS DISTRIB. IN THE MARSHLAND ECOSYSTEM OF THE S.E. ATLANTIC COAST	GHUMAN, GIAN	80672801	NEW	79/08/31	$82,200
** TRAINING **						
ATLANTA UNIV. CENTER ATLANTA	WATER RESOURCES DUAL DEGREE ENGINEERING PROGRAMS	ESPY, C.	90090801	INCR	79/09/19	$125,815
GEORGIA INST. OF TECH. ATLANTA	TRAINING PROGRAM IN HAZARDOUS WASTE MANAGEMENT	POHLAND, F. G.	90107001	NEW	79/09/26	$29,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	HAWAII					
** RESEARCH **						
HAWAII, UNIV. OF HONOLULU	RESPONSES OF A TROPICAL ESTUARY TO RELAXATION OF SEWAGE STRESS	SMITH, S.	80398303	INCR	79/05/31	$50,000
HONOLULU CITY & CNTY HONOLULU	LIQUEFACTION OF SEWAGE SLUDGE FOR PRODUCTION OF SYNTHETIC ASPHALT	CHEW LUN LAU	80679001	NEW	79/09/25	$141,693

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	I D A H O					
** RESEARCH **						
IDAHO DEPT OF HEALTH & WELFARE BOISE	IDAHO EPIDEMIOLOGIC STUDIES PROGRAM	BROKOPP, C.	80693001	NEW	79/07/23	$250,000
IDAHO, UNIV. OF MOSCOW	SEDIMENTATION AND PRODUCTIVITY OF SALMONID STREAMS	BJORNN, T.	80619502	CONT	79/08/28	$134,393
** DEMONSTRATION **						
BOISE, CITY OF BOISE	NOISE MONITORING AND ABATEMENT PROGRAM	BAKER,SARA	80698301	NEW	79/08/28	$14,172
** FELLOWSHIPS **						
ADAMS, MARGRIT VON BRAUN MOSCOW	ENGINEERING SCIENCE & SAN ENGR	IDAHO, UNIV. OF	91139701	NEW	79/06/26	$6,000
MARCHUS, M. POCATELLO	ENVIRONMENTAL ENGINEERING	IDAHO STATE UNIV.	91133101	NEW	79/09/18	$6,000
ROSS, MICHAEL D. MOSCOW	ENVIRONMENTAL ENGINEERING	IDAHO UNIV. OF	91150101	NEW	79/09/04	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

ILLINOIS

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
CHEMICAL COATERS ASSOC., WHEATON	EVALUATION OF ENVIRONMENTAL AND ENERGY BENEFITS ACHIEVABLE BY COMPUTER PROCESS	HEUERTZ, M.	80708301	NEW	79/08/21	$70,000
CHICAGO METRO. SAN. DIST., CHICAGO	ENVRN CHANGES AGRICULTURAL BENEFITS FROM USING MUN SEWAGE SLUDGE/CROP PRODUCTION/STRIP-MINED SOILS	BRAXTON, J. S.	80562901	INCR	79/07/31	$25,963
DEPAUL UNIV., CHICAGO	INPUTS OF HAZARDOUS MATERIALS FROM ATMOSPHERE TO SAGINAW BAY	MURPHY, THOMAS J.	80532502	INCR	79/06/19	$56,000
IIT RESEARCH INST., CHICAGO	EFFECT OF INDUSTRIAL PARTICULATE EMISSIONS ON ALVEOLAR MACROPHAGES	ARANYI, C.	80514102	INCR	79/08/02	$2,061
IIT RESEARCH INST., CHICAGO	EFFECTS OF AIR POLLUTANTS ON RESISTANCE TO RESPIRATORY INFECTIONS	EHRLICH, R.	80579402	CONT	79/04/24	$115,000
IIT RESEARCH INST., CHICAGO	DEVELOPMENT & EVAL.OF AN AMBIENT VIABLE MICROBIAL AIR SAMPLER	FANNIN, K.	80586401	INCR	79/06/22	$95,259
IIT RESEARCH INST., CHICAGO	STUDY OF MICROBIAL AEROSOLS EMITTED FROM A WATER RECLAMATION PLANT	FANNIN, K.	80606202	CONT	79/06/29	$156,782
IIT RESEARCH INST., CHICAGO	CHEMICAL STABLIZERS FOR THE CONTROL OF FUGITIVE ASBESTOS EMISSIONS	ABE, PAUL	80626901	INCR	79/06/21	$14,813
IIT RESEARCH INST., CHICAGO	RESPIRATORY CARCINOGENESIS OF DIESEL FUEL EMISSIONS AND RELATED SUBSTANCES	SHEFNER, ALAN	80692901	NEW	79/09/19	$200,000
ILLINOIS INST. OF TECH., CHICAGO	CRITERIA TO PREDICT REMOVALS OF SELECTED PRIORITY POLLUTANTS IN COMBINED TREATMENT SYSTEMS	PATTERSON, J.	80658201	NEW	79/08/20	$80,500

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

I L L I N O I S

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
ILLINOIS, UNIV, MEDICAL CTR, CHICAGO	BIOSYNTHESIS OF N-NITROSO COMPOUNDS	EPSTEIN, SAMUEL	80543103	INCR	79/09/18	$30,000
ILLINOIS, UNIV. OF URBANA	REACTION OF ACTIVATED CARBON WITH AQUEOUS CHLORINE AND OTHER DISINFECTING AGENTS	SNOEYINK, V.	80529303	CONT	79/06/06	$136,215
ILLINOIS, UNIV. OF CHICAGO	METHODOLOGIES FOR UTILIZATION OF ENVIRONMENTAL IMPACT ASSESSMENT DATA	BABCOCK, L.	80547603	CONT	79/07/05	$71,580
ILLINOIS, UNIV. OF URBANA	GROUNDWATER SAMPLING AND SAMPLE PR.SERVATION TECHNIQUES	GIBB, J.	80630401	INCR	79/05/09	$22,655
ILLINOIS, UNIV. OF URBANA	HABITAT STRUCTURE AND FISH COMMUNITIES IN WARMWATER STREAMS	KARR, J.	80639102	CONT	79/09/19	$65,632
ILLINOIS, UNIV. OF URBANA	MINERAL MATTER AND TRACE ELEMENTS IN COAL	RUSSELL, S.	80665401	NEW	79/04/27	$72,742
ILLINOIS, UNIV. OF URBANA	RESEARCH FOR MEASUREMENT AND CONTROL OF WIND BLOW DUST FROM STORAGE PILES	SOO, SHAO L.	80674701	NEW	79/08/27	$15,000
ILLINOIS, UNIV. OF URBANA	COOPERATIVE AGREEMENT FOR ADVANCE CONTROL TECHNOLOGY CENTER	ENGELBRECHT, R.	80681901	NEW	79/08/01	$350,000
ILLINOIS, UNIV. OF URBANA	DEVELOPMENT OF MONITORING METHODS TO DETERMINE THE PRESENCE OF MUTAGENIC COMPOUNDS IN CHICAGO SEAWAG	HOPKE, PHILIP	80700901	NEW	79/08/01	$110,000
ILLINOIS, UNIV. OF (URBANA) URBANA	COSTS AND BENEFITS OF PESTICIDE USE	SWANSON, E.	80715101	NEW	79/08/27	$168,589

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I L L I N O I S

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
** RESEARCH **						
RUSH-PRESBYTERIAN-ST. LUKE'S MED CTR, CHICAGO	TYPE A VIRAL HEPATITIES: EFFECT OF CHLORINE ON ANTIGENICITY AND INFECTIVITY	PETERSON, D.	80598602	CONT	79/08/07	$61,341
TASK FORCE ON THE FUTURE OF ILLINOIS, CARBONDALE	AN EXPANSION FO THE CITIZEN PARTICIPATION ACTIVITIES OF THE TASK FORCE ON THE FUTURE OF ILLINOIS	MORENS, F.	80718401	NEW	79/08/31	$25,000
WESTERN ILLINOIS UNIV., MACOMB	TRADESCANTIA-MCN-IN-TETRAD MUTAGEN TEST FOR ON-SITE MONITORING & FURTHER VALIDATION OF TEST SYSTEM	TE-HSIU MA	80642201	INCR	79/08/31	$1,500
** DEMONSTRATION **						
CHICAGO, CITY OF, CHICAGO	COMPARATIVE CURBSIDE VEHICLE PASSBY NOISE STUDY TO ASSESS THE EFFECTIVENESS OF NOISE AWARENESS PROG.	GALLAY, DON	80706301	NEW	79/08/28	$24,035
METAL FINISHERS FDN., CHICAGO	METAL REMOVAL & CYANIDE DESTRUCTION USING A CARBON FIBER ELECTROCHEMICAL REACTOR	DURKIN, E. P.	80576801	INCR	79/05/22	$60,000
** TRAINING **						
AMERICAN MEDICAL ASSOC., CHICAGO	HEALTH EFFECTS OF AIR POLLUTION: AN EDUCATION VIDEOTAPE	DUEL, WARD	90097201	NEW	79/07/23	$30,000
ILLINOIS INST. OF TECH., CHICAGO	AIR POLLUTION TRAINING PROGRAM	NOLL, KENNETH E.	90080301	INCR	79/05/31	$8,800
ILLINOIS INST. OF TECH., CHICAGO	GRADUATE TRAINING IN AIR POLLUTION	NOLL, K.	90080302	CONT	79/09/05	$68,585
ILLINOIS INST. OF TECH., CHICAGO	PLANNING FOR THE FOURTH NATIONAL CONFERENCE ON ENVIRONMENTAL ENGINEERING EDUCATION	PATTERSON, J.	90095801	NEW	79/05/24	$15,865

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	ILLINOIS					
** TRAINING **						
ILLINOIS INST. OF TECH., CHICAGO	REGIONAL TECHNICAL ASSISTANCE CENTER, REGION #5	SCHECHTER, H.	90099101	NEW	79/08/31	$29,424
ILLINOIS, UNIV. OF URBANA	PROFESSINAL TRAINING IN WATER TREATMENT	PFEFFER, J.	90086001	INCR	79/08/28	$10,245
** FELLOWSHIPS **						
GRAMMER, J. CHICAGO	WATER POLLUTION	ILLINOIS STATE UNIV.	91133301	NEW	79/05/24	$6,000
SEYFARTH, MARION EDWARDSVILLE	ENVIRONMENTAL ENGINEERING	SOUTHERN ILLINOIS	91140201	NEW	79/08/03	$5,178

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	INDIANA					
** RESEARCH **						
AMERICAN PESTICIDE CONTROL ASSOC. WEST LAFAYETTE	RESEARCH & EVALUATION OF FIFRA ISSUES IMPACTING ON STATE PESTICIDE REGULATORY PROGRAMS	NELSON, L.	80637101	INCR	79/04/10	$30,000
BUTLER UNIV. INDIANAPOLIS	A CONTINUATION GRANT FOR THE SECOND YEAR OF THE FACILITATION OF GENERAL UNDERSTANDING	KILLPACK, C.	80597802	CONT	79/06/21	$99,251
DEPAUW UNIV. GREENCASTLE	AN INVESTIGATION OF BENTHIC AND FISH COMMUNITIES OF STUTTS AND EAGLE CREEKS AS RELATED TO THE MODEL	GAMMON, J.	80618402	CONT	79/08/27	$120,000
EVANSVILLE, CITY OF EVANSVILLE	PREVENTION OF FORMATION AND REMOVAL OF HALOGENATED ORGANIC USING CHLORINE DIOXIDE	MILLS, D. B.	80490201	INCR	79/05/24	$40,000
NOTRE DAME, UNIV. OF NOTRE DAME	ANALYSIS AND ASSESSMENT OF INCINERATED MUNICIPAL SLUDGE ASHES AND LEACHATES	THEIS, THOMAS	80669001	NEW	79/08/31	$41,146
** DEMONSTRATION **						
EAST CHICAGO SAN DIST E. CHICAGO	EAST CHICAGO TREATMENT LAGOON/DISINFECTION DEMONSTRATION	RAYKOVICH, T.	80709701	INCR	79/09/26	$22,400
** TRAINING **						
NATIONAL ENVRN. TRAINING ASSOC., INC. GARY	ASSESSMENT/NEEDS OF WATER AND WASTEWATER INSTRUCTORS	KINIAS, GEORGE	90093701	NEW	79/04/24	$47,454
NOTRE DAME, UNIV. OF NOTRE DAME	ENVIRONMENTAL HEALTH ENGINEERING TRAINING PROGRAM	IRVINE, R.	90082001	INCR	79/08/27	$9,492
** FELLOWSHIPS **						
WEISS, R. INDIANAPOLIS	BIOLOGY	INDIANA UNIV.	91131501	INCR	79/08/02	$2,679

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	I O W A					
** RESEARCH **						
IOWA STATE UNIV. AMES	SCALE HAZINESS, ORIGIN, SPATIAL-TEMPORAL, DISTRIBUTION, PROPERTIES AND EFFECTS ON ATMOSPHERIC RAD	JOHNSON, H.	80660301	NEW	79/07/11	$332,121
IOWA STATE UNIV. AMES	EFFECT OF AGRICULTURAL LAND USE PRACTICES ON STREAM WATER QUALITY: SOCIOLOGICAL FACTORS	KORSCHING, P.	80681401	NEW	79/08/13	$19,818
IOWA STATE UNIV. AMES	EFFECT OF AGRICULTURAL LAND USE PRACTICES ON STREAM WATER QUALITY ECONOMICS ANALYSIS	MIRANOWSKI, J.	80708701	NEW	79/08/21	$91,120
IOWA STATE UNIV. AMES	EFFECTS OF AGRICULTURAL LAND USE PRACTICES ON STREAM WATER QUALITY: BIOTIC COMMUNITIES	MENZEL, B.	80712201	NEW	79/08/28	$19,122
IOWA, UNIV. OF IOWA CITY	A PESTICIDE TRANSPORT & BIOACCUMLATION MODEL FOR CORALVILLE RESERVOIR, IOWA	SCHNOOR, J. L.	80605902	CONT	79/09/26	$109,512
IOWA, UNIV. OF IOWA CITY	EPIDEMIOLOGIC STUDIES PROGRAM-PESTICIDES-COOPERATIVE AGREEMENT	KIRBY, K.	80690301	NEW	79/08/28	$478,567
IOWA, UNIV. OF IOWA CITY	THIS PROJECT WILL CONSIDER SURFACE IMPOUNDMENTS OF LIQUID WASTES DISCHARGED BY MUNICIPALITIES, INDUS	MUSTERMAN, J.L.	80701201	NEW	79/08/10	$50,000
IOWA, UNIV. OF IOWA CITY	CITIZENS FUTURE STUDY: HAZARDOUS WASTE FACILITY SITING IN IOWA	FULLER, JOHN	80716301	NEW	79/09/12	$24,745
** DEMONSTRATION **						
DES MOINES, CITY OF DES MOINES	DEMONSTRATE THE EFFECT OF A PUBLIC EDUCATION GROGRAM IN COMMUNITY WITH COMPLAINT RESPONSE ORDIANCE	VOSLER, BARRY	80693501	NEW	79/08/28	$28,297
** TRAINING **						
ASSOC OF BOARDS OF CERTIFICATION AMES	WATER CERTIFICATION EXAMINATION DEVELOPMENT	SEIDEL, HARRIS F.	90103901	NEW	79/08/07	$99,016

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

I O W A

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
ASSOCIATION OF BDS OF CERTIFICATION AMES	DEVELOPMENT OF OPERATOR CERTIFICATION EXAM SERVICES	STRICKER, J.	90100401	NEW	79/07/05	$90,000
IOWA BD OF CERTIFICATION AMES	TRAINING SYSTEM EVALUATION SYSTEM IMPLEMENTATION	CAMPBELL, DAN	90101201	NEW	79/07/16	$60,000
IOWA, UNIV. OF IOWA CITY	REGIONAL NOISE TECHNICAL ASSISTANCE CENTER	ANDERSON, C.	90098501	NEW	79/08/28	$31,876

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	K A N S A S					
** RESEARCH **						
KANSAS STATE UNIV. MANHATTAN	DETERMINATION OF KINETICS OF PHOSPHORUS MINERALIZATION SOILS UNDER OXIDIZING CONDITIONS	ELLIS, ROSCOE	80540302	CONT	79/05/31	$30,489
KANSAS, UNIV. OF LAWRENCE	EXPERIMENTAL POND STUDIES ON THE EFFECTS OF AGRICULTURAL HERBICIDES ON AQUATIC FOOD CHAINS.	DENOYELLES, F.	80664101	NEW	79/05/24	$35,189
KANSAS, UNIV. OF (CTR FOR RES) LAWRENCE	PESTICIDE USE REDUCTION THROUGH INTEGRATED CONTROL PROCEDURES ON MUSK THISTLE (CARDUUS NUTANS)	MARTINKO, E.	80545503	CONT	79/08/03	$75,160
** TRAINING **						
KANSAS, UNIV. OF LAWRENCE	PROFESSIONAL TRAINING IN WATER QUALITY	MCKINNEY, R.	90087101	INCR	79/08/31	$3,320
SEDGWICK CNTY WICHITA	DEPARTMENT OF ENVIRONMENTAL RESOURCES	PANKRAT, J.	90106401	NEW	79/09/05	$60,000
** FELLOWSHIPS **						
BRADLEY, RANDY LAWRENCE	BIO-ENVIRONMENTAL ENGINEERING	KANSAS, UNIV. OF	91150201	NEW	79/08/10	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	K E N T U C K Y					
** RESEARCH **						
KENTUCKY, UNIV. OF LEXINGTON	METABOLISM OF CARBAMATE INSETICIDES	DOROUGH, W. H.	80514303	CONT	79/05/18	$67,880
** TRAINING **						
ENVIRONMENTAL ALTERNATIVES, INC. LOUISVILLE	REGIONAL TOXIC PUBLIC PARTICIPATION PROGRAM IN JEFFERSON CO., KENTUCKY	HALLMAN, D.	90106901	NEW	79/09/26	$14,500
IZAAK WALTON LEAGUE OF KY., INC. COVINGTON	EXPAND NATIONAL SYNDICATION OF ENVIRONMENTAL TV SHOW 'MAKEPEACE WITH NATURE'	SURBER, D.	90104301	NEW	79/09/26	$7,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

L O U I S I A N A

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
GULF SOUTH RES. INST. BATON ROUGE	TOTAL ORGANIC CHLORINE (TOCI) ANALYSIS-INSTRUMENTATIO N FOR DIRECT DETERMINATION IN WATER	GEBHART, J	80534002	CONT	79/09/04	$97,107
LOUISIANA STATE UNIV. BATON ROUGE	DEGRADATION RATES AND SORPTION CHARACTERISTICS OF SELECTED PESTICIDES UNDER CONTROLLED REDOX POTENT	PATRICK, W.	80701801	NEW	79/09/12	$153,702
LOUISIANA STATE UNIV. & A&M COLLEGE BATON ROUGE	ENVIRONMENTAL IMPACT OF SUBSTITUTE CHEMICALS IN AGRICULTURALLY-AFFECTED WETLANDS	DAY, J.	80497603	CONT	79/08/10	$95,757
LOUISIANA STATE UNIV. & A&M COLLEGE BATON ROUGE	TRACE & TOXIC METALS IN SLUDGE-AMENDED SOILS	PATRICK, W.	80578901	INCR	79/05/09	$51,193
NEW ORLEANS, UNIV. OF NEW ORLEANS	FORMATION OF CARCINOGENIC PHOTOOXIDATION PROD. FR. POLYAROMATIC	LASETER, J.	80464702	INCR	79/04/24	$5,000
NEW ORLEANS, UNIV. OF NEW ORLEANS	GC-MS ANALYSIS OF POTENTIAL CARCINOGENIC ORGANIC POLLUTANTS IN AQUATIC ORGANISMS AND SEDIMENTS	LASETER, J.	80716001	NEW	79/08/13	$161,395
TULANE UNIV. NEW ORLEANS	WATER SOURCES & CHARACTERISTICS & MALIGNANCY RATES OF SELECTED SITE IN SELECTED PARISHES OF LOUISIAN	GOTTLIEB, M.	80511002	INCR	79/04/24	$16,924
TULANE UNIV. NEW ORLEANS	INVESTIGATION OF PARASITES IN SLUDGES AND DISINFECTION TECHNIQUES	REIMERS, R.	80671101	NEW	79/07/05	$176,638

** DEMONSTRATION **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
JEFFERSON PARISH DEPT OF PUBLIC UTIL JEFFERSON	MULTIPLE PROCESS APPROACH FOR REMOVAL OF ORGANIC SUBSTANCES FROM DRINKING WATER	BRODTMANN, N.	80692501	NEW	79/09/04	$1,388,000
•			80692501	INCR	79/09/26	$54,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	L O U I S I A N A					
** DEMONSTRATION **						
NEW ORLEANS, CITY OF NEW ORLEANS	COOPERATIVE AGREEMENT TYPE D BETWEEN CITY OF NEW ORLEANS AND U.S. EPA	HAMMOND,JOHN	80693401	NEW	79/08/28	$49,774
** TRAINING **						
ECOLOGY CENTER OF LOUISIANA, INC. NEW ORLEANS	REGIONAL TOXICS PUBLIC PARTICIPATION PROGRAM IN SOUTHEAST LOUISIANA	VINCENT, ROSS	90103301	NEW	79/09/04	$20,000
LEAGUE OF WOMEN VOTERS OF LA., INC. BATON ROUGE	REGIONAL TOXIC PUBLIC PARTICIPATION PROGRAM IN LOUISIANA	GOTTLIEB, J.	90103101	NEW	79/09/12	$19,774

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	MAINE					
** RESEARCH **						
MAINE, UNIV. OF ORONO	ATMOSPHERIC EMISSIONS FROM ASPHALT PRODUCTS	SIMARD, G.	80600901	INCR	79/08/15	$10,000
** TRAINING **						
MAINE AUDUBON SOCIETY FALMOUTH	RURAL SOLID WASTE CASE STUDIES	RING, CHERYL	90097301	NEW	79/06/05	$3,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

MARYLAND

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
CHESAPEAKE RES. CONSORTIUM ANNAPOLIS	DEFINITION OF CHESAPEAKE BAY PROBLEMS OF EXCESSIVE ENRICHMENT OR EUTROPHICATION	CRONIN, E.	80618901	INCR	79/08/28	$22,054
CHESAPEAKE RESEARCH CONSORTIUM, INC. ANNAPOLIS	EVALUATION OF BIOASSAY METHODOLOGY FOR APPLICATION TO CHESAPEAKE BAY AND OTHER ESTUARIES	CRONIN, E.	80714801	NEW	79/09/05	$99,952
HAGERSTOWN, CITY OF HAGERSTOWN	A STUDY OF SEWER REHABILITATION TECHNIQUES IN AN AREA OF LIMESTONE GEO-HYDROLOGY	TURKELTAUB, R.	80662501	NEW	79/09/19	$45,000
JOHNS HOPKINS UNIV. BALTIMORE	CHESAPEAKE BAY EARTH SCIENCE STUDY - ANIMAL SEDIMENT RELATIONSHIP	BRICKER, O.	80596401	INCR	79/07/23	$4,075
JOHNS HOPKINS UNIV. BALTIMORE	STABILITY AND DFFECTIVENESS OF CHLORINE, CHLORAMINE AND CHLORINE DIOXIDE IN WATER DISTRUBUTION SYS	OLIVIERI, V.	80607402	CONT	79/08/28	$107,071
JOHNS HOPKINS UNIV. BALTIMORE	EXHAUST EMISSIONS FROM A DIESEL ENGINE	RISBY, T.	80655801	NEW	79/05/25	$111,831
JOHNS HOPKINS UNIV. BALTIMORE	BIOSTRATIGRAPHY OF CHESAPEAKE BAY AND ITS TRIBUTARIES	BRUSH, GRACE	80668001	NEW	79/09/25	$99,285
JOHNS HOPKINS, UNIV. OF BALTIMORE	CHESAPEAKE BAY EARTH SCIENCE STUDY-INTERSTITTAL WATER CHEMISTRY	BRICKER, O.	80596301	INCR	79/08/28	$20,000
MARYLAND DEPT. NATURAL RESOURCES ANNAPOLIS	EVALUATION OF WATER QUALITY MANAGEMENT TOOLS IN THE CHESTER RIVER BASIN	WILSON, H.	80634301	INCR	79/08/06	$115,000
MARYLAND EASTERN SHORE, UNIV. OF PRINCESS ANNE	VIVO INCORPORATION OF TOXIC ELEMENTS INTO ANIMAL TISSUES	HOPKINS, T.	80517501	INCR	79/08/15	$8,621

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M A R Y L A N D					
** RESEARCH **						
MARYLAND, UNIV. OF BALTIMORE	DETECTION OF MUTAGENIC/CARCINOGENIC ALTERATION IN FISH AND ITS APPLICATION TO HUMAN HEALTH	HINTON, D. E.	80486601	INCR	79/04/02	$20,131
MARYLAND, UNIV. OF COLLEGE PARK	DEVELOPMENT OF GLASS ARRAY IMPACTORS FOR SEPARATION OF FIBEROUS AEROSOLS	GENTRY, JAMES	80651801	NEW	79/05/09	$43,000
MARYLAND, UNIV. OF COLLEGE PARK	EXTENSION OF BENEFIT-COST ANALYSIS FOR THE REGULATION OF DAMAGE TO THE OZONE SHIELD	CUMBERLAND, J.	80697301	NEW	79/08/02	$103,000
MARYLAND, UNIV. OF COLLEGE PARK	AMMONIA REMOVAL FROM STEEL INDUSTRY WASTEWATER	BIRKNER, F.	80706401	NEW	79/09/26	$11,700
MARYLAND, UNIV. OF COLLEGE PARK	ECONOMICS ANALYSIS OF COSTS & BENEFITS OF THE USE OF PESTICIDES ON CROP & NON-CROP SITES	NORTON, VIRGIL J.	80721501	NEW	79/09/11	$75,000
** DEMONSTRATION **						
BALTIMORE, CITY OF BALTIMORE	LOCH RAVEN RESERVIOR AERATION DEMONSTRATION PROJECT	KUCHTA, F. W.	80489401	INCR	79/04/24	$40,900
MARYLAND STATE DEPT HEALTH&MENTAL HYG BALTIMORE	COOPERATIVE AGREEMET WITH STATE OF MARYLAND UNDER TSCA	EISENBERG, MAX	80685301	NEW	79/04/06	$230,935
** TRAINING **						
CHARLES CNTY. COMMUN. COLLEGE LA PLATA	WATER POLLUTION CONTROL TRAINING	ENGEL, W.	90074001	INCR	79/07/17	$4,000
MARYLAND, UNIV. OF COLLEGE PARK	REGIONAL NOISE TECHNICAL ASSISTANCE CENTER, REGION III	CUNNIFF, P.	90098701	NEW	79/08/28	$30,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
		M A R Y L A N D				
** TRAINING **						
POTOMAC RIVER AND TRAILS COUNCIL FREDERICK	WATER CONSERVATION HANDBOOK	WESELY, F.	90105701	NEW	79/09/26	$3,800
** FELLOWSHIPS **						
COHEN, A. BALTIMORE	COLLEGE BIOLOGY	JOHNS HOPKINS UNIV.	91140601	NEW	79/08/13	$2,500
COVER, CHARLES COLLEGE PARK	M.S./CIVIL ENGR./PART TIME	MARYLAND, UNIV. F	91111801	INCR	79/08/10	$952
FILAR, M. BALTIMORE	MECHANICAL ENGINEERING	CATONSVILLE COMMUN.	91132901	INCR	79/08/02	$670
GLOTFELTY, RODNEY BALTIMORE	ZOOLOGY	JOHNS HOPKINS UNIV.	91130201	NEW	79/08/24	$6,000
HEINIGER, ROBERT COLLEGE PARK	GEOGRAPHY	MARYLAND, UNIV. OF	91130501	NEW	79/09/04	$2,339
HOLHOOK, L. COLLEGE PARK	OCEAN ENGINEERING TECH	MARYLAND, UNIV. OF	91140401	NEW	79/07/30	$880
LARIMORE, CHARLES COLLEGE PARK	GENERAL COLLEGE STUDIES	MARYLAND, UNIV. OF	91137501	NEW	79/08/13	$721
NACE, RICHARD BALTIMORE	ENVIRONMENTAL ENGINEERING	JOHNS HOPKINS UNIV.	91138601	NEW	79/07/09	$1,230
PITTMAN, JAMES BALTIMORE	GEOLOGY	JOHNS HOPKINS UNIV.	91150301	NEW	79/08/23	$1,930

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APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	MARYLAND					
** FELLOWSHIPS **						
RAMSEY, R. L. COLLEGE PARK	M.S./PUBLIC ADMIN.	MARYLAND, UNIV. OF	91096601	INCR	79/08/01	$895
SACHDEVA, NAND BALTIMORE	CIVIL ENGINEERING	JOHNS HOPKINS UNIV.	91136301	NEW	79/08/10	$3,050
SANDBERG, HARRY BALTIMORE	ENVIRONMENTAL ENGINEERING	JOHNS HOPKINS UNIV.	91165901 *	NEW	79/06/29	$5,815
			91165901	INCR	79/08/27	$185
SAVILLE, ROBERT CUMBERLAND	CHEMICAL ENGINEERING	ALLEGANY COMMUNITY COL	91148801	NEW	79/07/26	$963
WILSON, M. COLLEGE PARK	M.S./WATER RESOURCES ENGR./FULL TIME AGENCY	MARYLAND, UNIV. OF	91111501	INCR	79/08/01	$892
ZELESKI, L. BALTIMORE	BIOMEDICAL SCIENCES	JOHN HOPKINS UNIV.	91136401	NEW	79/07/16	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
M A S S A C H U S E T T S						
** RESEARCH **						
AMERICAN METEOROLOGICAL SOCIETY BOSTON	AIR QUALITY MODELING	SPENGLER, K.	80689401	NEW	79/08/06	$100,000
ARTHUR D. LITTLE, INC. CAMBRIDGE	PROCESS FOR ACTIVE CARBON REGENERATION AND FOR RECOVERY OF HAZARDOUS PESTICIDE WASTES	DE FILIPPI, R. P.	80455401	INCR	79/05/15	$27,616
ARTHUR D. LITTLE, INC. CAMBRIDGE	SUPERCRITICAL FLUID REGENERATION OF ACTIVATED CARBON FOR TREATING PESTICIDE MANUFACTURING WASTEWATER	DEFILIPPI, R.	80687401	NEW	79/06/19	$72,362
BOSTON UNIV. BOSTON	FEEDING, REPRODUCTION AND HABITAT SELECTION OF LOBSTERS (HOMARUS AMERICANUS): EFFECTS OF DRILLING	ATEMA, JELLE	80663001	NEW	79/05/24	$40,000
HARVARD COLLEGE CAMBRIDGE	HIGH VELOCITY FILTRATION	LEIGH, DAVID	80708001	NEW	79/09/05	$60,000
HARVARD UNIV. CAMBRIDGE	COOPERATIVE AGREEMENT BETWEEN USEPA AND HARVARD UNIVERSITY TO MEASURE FLOW-VOLUME RELATIONSHIPS IN 5	LEIGH, DAVID	80712801	NEW	79/09/06	$32,928
MASSACHUSETTS GENERAL HOSPITAL BOSTON	LABORATORY AND FIELD TRIAL EVALUATION OF THE COST EFFECTIVENESS OF TWO TYPES OF PERSONAL ULTRAVIOLET	SOBER, ARTHUR	80722201	NEW	79/09/26	$69,600
MASSACHUSETTS INST. OF TECH. CAMBRIDGE	REDUCTION OF POLLUTANT FORMATION IN COAL PARTICLE AND LIQUID FUEL SPRAY FLAMES	BEER, JANOS	80555203	CONT	79/08/28	$41,500
MASSACHUSETTS INST. OF TECH. CAMBRIDGE	RESEARCH ANALYSING TRANSPORTATION AND RELATED STRATEGIES TO ACHIEVE AIR QUALITY OBJECTIVES	MANHEIM, M.	80662201	NEW	79/06/19	$100,000
MASSACHUSETTS INST. OF TECH. CAMBRIDGE	PLAN. MODELS FOR URBAN WATER SUPPLY EXPAN: INCORP. DEMAND UNCERTAINTY AND REGIONALIZATION CONCERNS	MARKS, D.	80680201	NEW	79/08/31	$64,500

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M A S S A C H U S E T T S					
** RESEARCH **						
MASSACHUSETTS INST. OF TECH., CAMBRIDGE	ENVIRONMENTAL REGULATION OF THE AUTOMOBILE: AN EXAMINATION OF THE FOREIGN EXPERIENCES AND THE TECH	ASHFORD, N.	80714101	NEW	79/09/26	$140,838
MASSACHUSETTS, UNIV. OF AMHERST	HUMAN HEALTH EFFECTS OF ELEVATED DRINKING WATER SODIUM LEVELS	TUTHILL, R.	80561202	INCR	79/07/06	$10,556
MASSACHUSETTS, UNIV. OF AMHERST	DRINKING WATER FACTORS AS ETIOLOGIC AGENTS IN THE DEVELOPMENT OF CARDIOVASCULAR DISEASE	CALABRESE, E.	80670001	NEW	79/05/09	$41,295
NEW ENGLAND AQUARIUM BOSTON	A STUDY OF THE IMPACT OF DISCHARGED DRILLING FLUID ON THE GEORGES BANK ENVIRONMENT	MCLEOD, G. C.	80677601	NEW	79/07/26	$99,985
NEW ENGLAND FISHERIES STEERING COMM. NEW BEDFORD	ELECTROCHEMICAL TREATMENT OF SEAFOODS PROCESSING WASTEWATER	NICKERSON, R.	80549301	INCR	79/08/10	$44,000
TUFTS UNIV. BOSTON	IN VIVO ANALYSIS OF UV-B INDUCED PHOTO-OXIDATION	KRINSKY, N.	80606602	CONT	79/09/25	$42,500
WHEATON COLLEGE NORTON	SKELETAL VARIANTS AS AN INDICATOR OF BIOLOGICAL EFFECTS OF ENVIRONMENTAL CONTAMINANTS	BECK, SIDNEY	80542003	CONT	79/09/05	$30,954
** DEMONSTRATION **						
BOSTON, CITY OF BOSTON	DEMONSTRATION OF SWIRL & HELICAL BEND REGULATORS AS STORM SEWER CONTROL DEVICES	SCALES, CHARLES	80579501	INCR	79/06/28	$200,000
BROOKLINE, TOWN OF BROOKLINE	INTERCOMMUNITY NOISE ABATEMENT PROJECT: TOWN OF BROOKLINE AND CITY OF NEWTON	WILLIS, PAUL	80698501	NEW	79/08/28	$12,000
MASSACHUSETTS PORT AUTHORITY BOSTON	SOUNDPROOFING/WEATHERIZATION	HILLMAN, GRACIA	80694101	NEW	79/08/28	$31,610

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M A S S A C H U S E T T S					
** DEMONSTRATION **						
WELLESLEY, TOWN OF WELLESLEY HILLS	INTEGRATED IRON & NITROGEN CONTROL FOR LAKE MGMT. (MORSES POND)	BERDAN, M. R.	80469601	INCR	79/05/24	$110,320
** TRAINING **						
BOSTON COLLEGE WESTON	AIR POLLUTION TRAINING PROGRAM	RIDER, T.	90080502	CONT	79/08/03	$20,385
HARVARD COLLEGE (PRES & FELLOWS OF) CAMBRIDGE	AIR POLLUTION TRAINING PROGRAM	MOELLER, DADE	90068103	CONT	79/09/06	$6,400
MASSACHUSETTS INST. OF TECH. CAMBRIDGE	SUMMER COURSE ON WATER/TOXIC CHEMICALS	HOGAN, G.	90093501	INCR	79/09/07	$15,020
NEW ALCHEMY INSTITUTE WOODS HOLE	THE VILLAGE AS SOLAR ECOLOGY: A GENERIC DESIGN CONFERENCE	TODD, JOHN & NANCY	90102001	NEW	79/09/27	$23,000
NEW ENGLAND INTERSTATE WATER POLL BOSTON	OPERATIONAL REVIEW PROJECT	SCHAUFFLER, F.	90104501	NEW	79/08/31	$52,000
NEW ENGLAND WATER WORKS ASSOC DEDHAM	NEWWA EDUCATION & INFORMATION PROGRAM	HATHAWAY, A.	90075501	INCR	79/06/28	$5,000
NORTHEASTERN UNIV. BOSTON	PROFESSINAL GRADUATE TRAINING IN WATER QUALITY ENGINEERING	COCHRANE, J.	90090101	INCR	79/08/31	$8,258
TUFTS UNIV. MEDFORD	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	PRO. BRUCE HANES	90087301	INCR	79/08/30	$15,949
** FELLOWSHIPS **						
BOIS, ROBERT H. MEDFORD	BIOLOGY	TUFTS UNIV.	91149501	NEW	79/08/01	$3,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	MASSACHUSETTS					
** FELLOWSHIPS **						
FAERBER, MATTHEW BOSTON	HISTORY/PLY SCI	NEW ENGLAND SCHOOL OF	91138101	NEW	79/06/28	$2,111
HOGAN, PAUL BOSTON	ENVIRONMENTAL ENGINEERING	NORTHEASTERN UNIV.	91137701	NEW	79/07/30	$2,500
KIMBALL, WARREN BOSTON	ENVIRONMENTAL ENGINEERING	NORTHEASTERN UNIV.	91147501	NEW	79/08/06	$2,500
WINKLER, J. BRIDGEWATER	M.A./EARTH SCIENCES	BRIDGEWATER STATE COLL	91104801	INCR	79/09/25	$500
** TRAINING **						
NEW ENGLAND RIVERS CENTER BOSTON	SECOND ANNUAL NEW ENGLAND RIVERS CONFERENCE	ARNOLD, THOMAS B.	90102501	NEW	79/08/15	$3,325

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M I C H I G A N					
** RESEARCH **						
AMERICAN SOCIETY OF AGRI ENGRS. ST JOSEPH	INTERNATIONAL SYMPOSIUM ON LIVESTOCK WASTES--1980	HAHN, RUSSELL	80701301	NEW	79/08/20	$13,860
CRANBROOK INST. OF SCIENCE BLOOMFIELD HILLS	FLUX OF ORGANIC TOXINS AND MAJOR NUTRIENTS IN LARGE LAKE SYSTEMS	BOWEN, H.	80659701	NEW	79/07/05	$249,019
EAST CENTRAL MICHIGAN PLANNING & DEVEL SAGINAW	FLOW MODEL OF SAGINAW RIVER	SYGO, JIM	80675401	NEW	79/06/25	$54,305
MERRILL-PALMER INST. DETROIT	THE INFLUENCE OF ORGANIC TOXINS ON INFANT DEVELOPMENT; PHASE I	FEIN, GRETA	80713201	NEW	79/09/26	$163,127
MICHIGAN DEPT OF PUBLIC HEALTH LANSING	EVALUATION OF HUMANS EXPOSED TO WATER BORNE CHEMICALS IN THE GREAT LAKES.	HUMPHREY, H.	80719201	NEW	79/09/26	$300,448
MICHIGAN DEPT OF PUBLIC HLTH LANSING	CONVERSION MSIS (MODEL STATE INFORMATION SYS) A GRANT TO COVER COMPUTER TIME SHARING COSTS INCURRED	KELLY, R.	80681801	NEW	79/08/16	$7,980
MICHIGAN STATE UNIV. E. LANSING	EVALUATION OF DREDGING AS A LAKE RESTORATION TECHNIQUE	MCNABB, C. D.	80504601	INCR	79/05/31	$52,881
MICHIGAN STATE UNIV. E. LANSING	HUMAN EPITHELIAL CELL METABOLIC ACTIVATION SYSTEMS FOR USE WITH HUMAN CELL MUTAGENESIS	MCCORMICK, J.	80556302	CONT	79/09/26	$81,290
MICHIGAN STATE UNIV. E. LANSING	ECOSYSTEM RESPONSES TO ALTERNATIVE PESTICIDES IN THE ENVIRONMENT	GOODMAN, E.	80562402	INCR	79/08/08	$5,000
MICHIGAN STATE UNIV. E. LANSING	ECOSYSTEM RESPONSES TO ALTERNATIVE PESTICIDES IN THE TERRESTRIAL ENVIRONMENT: A SYSTEMS APPROACH	GOODMAN, E.	80562403	CONT	79/08/28	$60,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	MICHIGAN					
** RESEARCH **						
MICHIGAN STATE UNIV. E. LANSING	DEVELOPMENT OF PROCESSOR-BASED HIERARCHICAL SYSTEM FOR COMMUNICATION OF INTEGRATED PEST MANAGEMENT	GAGE, STUART	80573002	CONT	79/09/26	$40,000
MICHIGAN STATE UNIV. E. LANSING	DESIGN AND MANAGEMENT OF A MULTIPEST AGROECOSYSTEM	HAYNES, D.	80603402	CONT	79/08/21	$159,782
MICHIGAN STATE UNIV. E. LANSING	AN ECONOMIC ANALYSIS OF AN AGRO-ECOSYSTEM FOR PEST CONTROL	HAYNES, D.L.	80606502	CONT	79/08/31	$71,262
MICHIGAN STATE UNIV. E. LANSING	ASSESSMENT OF ENERGY-RELATED TOXICANT STRESS IN AN ENGINEERED ECOSYSTEM	BOLING, R.	80621401	INCR	79/09/19	$104,948
MICHIGAN STATE UNIV. E. LANSING	SIGNIFICANCE OF ANAEROBIC BIODEGRADATION OF XENOBIOTICS IN SEDIMENTS AND WATERS	TIEDJE, JAMES	80656901	NEW	79/04/16	$59,900
MICHIGAN TECH. UNIV. HOUGHTON	UTILITY OF WET OXIDATION IN THE TREATMENT OF HAZARDOUS ORGANIC WASTES	BAILLAD, R.	80556501	INCR	79/08/15	$44,467
MICHIGAN, UNIV. OF ANN ARBOR	RATES OF ACCUMULATION OF POTENTIALLY HAZARDOUS SUBSTANCES IN RECENT SEDIMENTS OF LAKE HURON	ROBBINS, J.	80468602	INCR	79/09/19	$60,000
MICHIGAN, UNIV. OF ANN ARBOR	DEVELOPMENT OF AN IN VITRO NEUROTOXICITY ASSAY	RICHARDSON, R.	80533903	CONT	79/07/17	$79,893
MICHIGAN, UNIV. OF ANN ARBOR	CHEMICALS AMPLIFERS AS ODD HYDROGEN RADICAL DETECTORS	STEDMAN, D.	80562101	INCR	79/06/21	$56,198
MICHIGAN, UNIV. OF ANN ARBOR	QUANTITATIVE CHARACTERIZATION OF GREAT LAKES PHYTOPLANKTON POPULATIONS	STOERMER, E. F.	80579602	CONT	79/04/30	$72,865

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

M I C H I G A N

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
MICHIGAN, UNIV. OF ANN ARBOR	EVALUATION OF GAS FILTER CORRELATION TECH. FOR THE SINGLE-ENDED MEASUREMENT OF SO2	HARTMAN, F.	80595601	INCR	79/04/27	$10,000
			80595601	INCR	79/09/18	$90,000
MICHIGAN, UNIV. OF ANN ARBOR	A DATA ANALYSIS & MANAGEMENT SYSTEM FOR PUBLIC WATER SUPPLIES	DESININGER, R.	80599401	INCR	79/06/25	$9,956
MICHIGAN, UNIV. OF ANN ARBOR	ASSESSMENT OF ENTRAINMENT AND IMPINGEMENT ON YELLOW PERCH	JENSEN, AL	80615902	CONT	79/09/06	$20,910
MICHIGAN, UNIV. OF ANN ARBOR	ECOLOGICAL STUDIES AND MATHEMATICAL MODELING FOR THE CONTROL OF CLADOPHRA ON THE GREAT LAKES	CANALE, R.	80660001	NEW	79/04/10	$147,100
MICHIGAN, UNIV. OF ANN ARBOR	AIR POLLUTION MONITORING BY LONG PATH LASERS	HARTMAN, F.	80665001	NEW	79/05/23	$45,000
MICHIGAN, UNIV. OF ANN ARBOR	SUPPORT FOR PL480 PROJECT, WATER QUALITY STUDIES ON RIVER NILE AND LAKE NASSER	MANCY, KHALIL	80709001	NEW	79/08/13	$20,000
NATIONAL SANITATION FOUNDATION ANN ARBOR	SIXTH NATIONAL CONFERENCE ON INDIVIDUAL ONSITE WASTEWATER SYSTEMS	MCCLELLAND,N,	80670101	NEW	79/06/29	$10,000

** DEMONSTRATION **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
MICHIGAN STATE DEPT NATURAL RESOURCES LANSING	TOXIC SUBSTANCES CONTROL ACT COOPERATIVE AGREEMENT	NOWINSKI, BOB	80685501	NEW	79/04/06	$501,030

** FELLOWSHIPS **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
BISHOP, MARK M E. LANSING	ENVIRONMENTAL ENGINEERING	MICHIGAN STATE UNIV.	91135801	NEW	79/07/03	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

M I C H I G A N

** FELLOWSHIPS **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
MERRIMEN, M. ANN ARBOR	ENVIRONMENTAL & INDUSTRIAL HEALTH	MICHIGAN, UNIV. OF	91136701	NEW	79/07/31	$6,000
HUBRLA, RICHARD E. LANSING	CIVIL ENGINEERING	MICHIGAN STATE UNIV.	91144501	NEW	79/08/06	$983
PRINISKI, PETER E. LANSING	CHEMISTRY	MICHIGAN STATE UNIV.	91142901	NEW	79/08/02	$3,012
RUCK, MARTIN E. E. LANSING	CIVIL ENGINEERING	MICHIGAN STATE UNIV.	91144701	NEW	79/08/23	$1,301
WNYCHECK, JOHN E. LANSING	AQUATIC ENTOMOLOGY	MICHIGAN STATE UNIV.	91142701	NEW	79/07/19	$2,006

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

M I N N E S O T A

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
INTERSOCIETY CONSORTIUM ON PLANT PROT ST PAUL	CROP PRODUCTION SYSTEMS: THE ROLE OF PLANT PROTECTION FROM PESTS	TARLETON, R.	80706001	NEW	79/09/26	$98,940
MIDWEST RESEARCH INSTITUTE MINNETONKA	ALTERNATIVES TO CONVENTIONAL POLLUTION CONTROL	DARNEY, A.	80691901	NEW	79/09/05	$57,980
MINNESOTA, UNIV. OF ST. PAUL	FORMATION OF ATMOSPHERIC AEROSOLS	WHITBY,K.	80385103	INCR	79/07/19	$101,000
MINNESOTA, UNIV. OF ST. PAUL	RESEARCH ON AIR SAMPLING FILTER MEDIA	LIU, BENJAMIN	80460003	INCR	79/07/30	$100,000
MINNESOTA, UNIV. OF MINNEAPOLIS	RENEWAL OF WATER TEMPERATURE STUDIES AT THE USEPA MONTICELLO FIELD STATION	STEFAN, H.	80473601	INCR	79/09/18	$4,000
MINNESOTA, UNIV. OF ST. PAUL	STRUCTURE ACTIVITY CORRELATION STUDIES	MAGNUSON, V.	80495303	INCR	79/06/26	$48,000
MINNESOTA, UNIV. OF ST. PAUL	GENERALIZATION OF WATER QUALITY CRITERIA USING CHEMICAL MODELS	HARRIS, D.	80499603	INCR	79/09/07	$11,146
MINNESOTA, UNIV. OF ST. PAUL	OXYGEN PRODUCTION, LOSS, EXCHANGE & TRANSPORT RATES IN MERS FIELD CHANNELS	STEFAN, H.	80567801	INCR	79/05/24	$11,561
MINNESOTA, UNIV. OF ST PAUL	DISPERSAL OF COAL DUST FROM TRASHSHIPMENT & POWER PLANT STORAGE FACILITIES	SYDOR, MICHAEL	80602002	CONT	79/08/06	$57,000
MINNESOTA, UNIV. OF ST. PAUL	ENVIRONMENTAL IMPACT OF ENERGY-RELATED ORGANIC COMPOUNDS ON AQUATIC ORGANISMS	CARLSON, R.	80608302	CONT	79/08/09	$175,197

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M I N N E S O T A					
** RESEARCH **						
MINNESOTA, UNIV. OF MINNEAPOLIS	PCB AND DDT CYCLING IN LAKE SUPERIOR	EISENREICH, S.	80608401	INCR	79/06/21	$34,000
MINNESOTA, UNIV. OF MINNEAPOLIS	STUDIES ON DROPLET ELECTRIFICATION IN RELATION TO LIQUID CHROMATOGRAPHIC DETECTION	LUI, B.	80617501	INCR	79/05/09	$14,978
MINNESOTA, UNIV. OF MINNEAPOLIS	STUDIES ON DROPLET ELECTRIFICATION IN RELATION TO LIQUID CHROMATOGRAPHIC DETECTION	LIU, BENJAMIN	80617502	CONT	79/09/04	$40,000
MINNESOTA, UNIV. OF MINNEAPOLIS	ASSESSMENT OF POTENTIAL HEALTH RISKS ASSOCIATED WITH ORGANIC CONTAMINANTS FEASIBILITY STUDY	SCHUMAN, L.	80628202	CONT	79/09/05	$51,525
MINNESOTA, UNIV. OF MINNEAPOLIS	ANTICHOLINESTERASE INSECTICIDE INDUCED PANCREATITIS	GOODALE, R.	80656101	NEW	79/04/27	$49,470
MINNESOTA, UNIV. OF MINNEAPOLIS	MECHANICS OF COARSE BEDLOAD TRANSPORT	STEFAN, HEINZ	80663201	NEW	79/05/31	$53,368
MINNESOTA, UNIV. OF MINNEAPOLIS	FORMATION OF ATMOSPHERIC AEROSOLS II	WHITBY, K.	80680101	NEW	79/09/05	$107,000
MINNESOTA, UNIV. OF ST. PAUL	AN EVALUATION OF THE EFFECT OF CHLORINE DISINFECTION PRACTICES ON DISSOLVED POLYNUCLEAR	CARLSON, R.	80689201	NEW	79/04/04	$61,615
MINNESOTA, UNIV. OF ST. PAUL	US/USSR EXCHANGE OF BIOLOGICAL CONTROL AGENTS	CHIANG, HUAI C.	80703301	NEW	79/08/20	$20,000
** DEMONSTRATION **						
LEAGUE OF MINNESOTA CITIES MINNESOTA	A NOISE COOPERATIVE AGREEMENT BETWEEN THE LEAGUE OF MINNESOTA CITIES AND U.S. EPA	SCHENDEL, H.	80697101	NEW	79/08/28	$38,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

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** DEMONSTRATION **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
ST. PAUL METRO, WASTE CONTROL COMM., ST PAUL	PROCESS AUTOMATION EVALUATION DEMONSTRATE AUTOMATED CONTROL SCHEMES FOR VACUUM FILTER AND INCINERATO	PULTA,R.C.	80360205	CONT	79/06/29	$80,000
WASECA, CITY OF WASECA	RETENTION & TREATMENT OF INFLOW TO CLEAR LAKE	HAARMAN, R.	80469101	INCR	79/09/05	$89,607

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
MINNESOTA, UNIV. OF ST PAUL	TRAINING PROGRAMS IN HAZARDOUS WASTE MANAGEMENT	MAIER, WALTER	90106501	NEW	79/09/26	$28,024

** FELLOWSHIPS **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
HALBACH, MYRNA MINNEAPOLIS	BIOCHEMISTRY	MINNESOTA, UNIV. OF	91149801	NEW	79/07/26	$4,845
NELSON, S. MINNEAPOLIS	GEOGRAPHY	MINNESOTA, UNIV. OF	91118501	INCR	79/04/27	$200
REUBEN, B. MINNEAPOLIS	AGENCY FELLOWSHIP	MINNESOTA, UNIV. OF	91116401	INCR	79/05/09	$130
SADLER, S. MINNEAPOLIS	M.S.BIOLOGY/CHEMISTRY	MINNESOTA, UNIV. OF	91117601	INCR	79/04/27	$1,180
TRIMBACH, J. MINNEAPOLIS	PSYCHOLOGY	MINNESOTA, UNIV. OF	91117501	INCR	79/04/24	$1,889
VENNEWITZ, MICHAEL MINNEAPOLIS	BIOLOGY	MINNESOTA, UNIV. OF	91139101	NEW	79/08/10	$1,155

M I S S I S S I P P I

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
** RESEARCH **						
MISSISSIPPI DEPT OF AGRI & COMM JACKSON	PESTICIDE COOPERATIVE AGREEMENT FOR LABORATORY AND FIELD EVALUATION OF ALTERNATES FOR FIRE ANT CONTR	UELTSCHEY, C.	80710101	NEW	79/09/18	$220,000
MISSISSIPPI STATE UNIV. MISSISSIPPI STAT	EPIDEMIOLOGIC STUDIES PROGRAM	MINYARD, J.	80686601	NEW	79/04/24	$260,000
MISSISSIPPI STATE UNIV. MISSISSIPPI STAT	PESTICIDE BENEFIT COST ANALYSIS ON CROP AND NON CROP SITES IN MISSISSIPPI AND OTHER STATES	PARVIN, DAVID	80710601	NEW	79/08/30	$220,000
SOUTHERN MISSISSIPPI, UNIV. OF HATTIESBURG	DEVELOPMENT OF A CARCINOGEN ASSAY SYSTEM UTILIZING ESTUARINE FISHES	MARTIN, BILLY J.	80621202	CONT	79/08/27	$75,000
** TRAINING **						
MISSISSIPPI STATE UNIV. MISSISSIPPI	SCIENCE AND PRACTICE OF WATER POLLUTION CONTROL	SHINDALA, A.	90086801	INCR	79/08/30	$9,011
** FELLOWSHIPS **						
BASDEN, CARL MISSISSIPPI STAT	CIVIL ENGINEERING	MISSISSIPPI STATE UNIV	91147901	NEW	79/08/07	$2,500

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

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** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
MISSOURI, UNIV. OF COLUMBIA	A STUDY OF CANCER AND THE PUBLIC DRINKING WATER SUPPLIES OF MISSOURI	MARIENFELD, C.	80529703	CONT	79/08/03	$110,000
MISSOURI, UNIV. OF COLUMBIA	DEVELOPMENT OF PEST MANAGEMENT STRATEGIES FOR SOIL INSECTS ON CORN	FAIRCHILD,M.	80542903	CONT	79/07/20	$282,168
MISSOURI, UNIV. OF COLUMBIA	ANALYSIS OF COSTS AND BENEFITS OF PESTICIDES USED IN MO & OTHER STATES	HEADLEY, J.C.	80713001	NEW	79/08/31	$62,700
MISSOURI, UNIV. OF (ROLLA) ROLLA	HEALTH IMPACTS OF ALTERED GEOCHEMISTRY ASSOCIATED WITH MINE DRAINAGE FROM WESTERN INTERIOR COALS	HIXSON, B.	80713301	NEW	79/08/23	$350,000
WASHINGTON UNIV. ST. LOUIS	STUDIES TO IMPROVE RELIABILITY & SENSITIVITY OF BACTERIAL MUTAGENS AS A SCREEN FOR ENVRN CARCINOGENS	COMMONER, B.	80439503	INCR	79/08/31	$99,979
WASHINGTON UNIV. ST. LOUIS	SULFUR BUDGET IN POWER PLANT PLUMES	GILLANI, N.	80591801	INCR	79/08/24	$72,000
WASHINGTON UNIV. ST. LOUIS	SULFUR BUDGET IN POWER PLAT PLUMES - PROCESSING, MANAGEMENT AND ANALYSIS OF PROJECT STATE DATA	GILLANI, N.	80591802	CONT	79/08/24	$100,000
WASHINGTON UNIV. ST. LOUIS	TECHNIQUES FOR THE MEASUREMENT OF AEROSOL CARBON CONTENT	MACIAS, EDWARD	80600502	CONT	79/07/11	$30,000
WASHINGTON UNIV. ST. LOUIS	REGIONAL SCALE HAZINESS, ORIGIN, SPATIAL-TEMPORAL DISTRIBUTION, PROPERTIES AND EFFECTS ON ATMOSPHERI	HUSAR, R.	80660601	NEW	79/07/11	$197,000
			80660601	INCR	79/09/04	$72,164

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

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** DEMONSTRATION **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
MISSOURI DEPT. OF NATURAL RESOURCES JEFFERSON CITY	FINGER LAKES RESTORATION PROJECT	KARCH, K.	80528401	INCR	79/09/18	$30,000
ST. LOUIS CNTY DEPT OF COMMUN HEALTH CLAYTON	COOPERATIVE AGREEMENT TYPE B BETWEEN ST. LOUIS COUNTY AND U.S. EPA TO DEVELOP A COUNTY VEHICLE NOISE	BATON, WM.	80691801	NEW	79/08/28	$10,000

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
MISSOURI, UNIV. OF COLUMBIA	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	KENT ROBERTS D	90087201	INCR	79/09/18	$5,834
NEOSHO WATER & WASTEWATER TECH SCHOOL NEOSHO	REVEIW OF FACILITY PLANS FOR STATE AGENCY PERSONNEL	LAYTON, R.	90099401	NEW	79/07/17	$57,180
WATER & WASTEWATER TECH. SCH. NEOSHO	TRI-SERVICES MANUAL-"OPERATION&MAINTENANCE OF DOMESTIC INDUSTRIAL WW SYS."&TRAINING COURSE EVAL.	LAYTON, RONALD F.	90070101	INCR	79/09/04	$15,767
WATER & WASTEWATER TECH. SCH. NEOSHO	WASTEWATER TREATMENT PLANT O&M--A NATIONAL ISSUE. TWO NATIONAL SYMPOSIA DEALING WITH USEPA, STATE	LAYTON, R.	90093601	INCR	79/04/24	$25,000
WATER & WASTEWATER TECHNICAL SCHOOL NEOSHO	EVALUATION/OPERATIONS AND MAINTENACE TRAINING FOR WW SYSTEMS IN THE U.S.	LAYTON,RONALD F.	90070201	INCR	79/06/05	$167,580

** FELLOWSHIPS **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
CLARKSON, RANDY COLUMBIA	CIVIL ENGINEERING	MISSOURI, UNIV. OF (CO	91140001	NEW	79/08/20	$5,100
LEEDS, MILTON COLUMBIA	CIVIL ENGINEERING	MISSOURI, UNIV. OF	91149001	NEW	79/08/10	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M I S S O U R I					
** FELLOWSHIPS **						
MCCONATHY, JAMES KANSAS CITY	ZOOLOGY	MISSOURI, UNIV. OF	91142101	NEW	79/08/21	$900

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	MONTANA					
** RESEARCH **						
MONTANA STATE UNIV. BOZEMAN	MONITORING PLANT COMMUNITY CHANGES DUE TO FOSSIL FUEL POWER PLANTS IN EASTERN MONTANA	TAYLOR, JOHN E.	80539103	CONT	79/08/02	$36,036
MONTANA STATE UNIV. BOZEMAN	AMMONIA TOXICITY TO FISHES	THURSTON, R.V.	80563601	INCR	79/06/28	$19,975
MONTANA STATE UNIV. BOZEMAN	EVALUATION OF SURFACE AND GROUND WATER PROBLEMS ASSOCIATED WITH STRIP MINE SITES: PHASE II	WILLIAMS, T.	80593502	CONT	79/06/28	$378,200
			80593502	INCR	79/08/31	$45,000
MONTANA STATE UNIV. BOZEMAN	INJURY AND THE IMPROVED RECOVERY OF COLIFORM BACTERIA IN DRINKING WATER	MCFETERS, G.	80709201	NEW	79/08/31	$51,142
MONTANA STATE UNIV. BOZEMAN	AQUATIC TOXICITY TESTING AND CRITERIA DOCUMENT DEVELOPMENT	THURSTON, R.	80724001	NEW	79/09/26	$100,000
MONTANA STATE UNIV. BOZEMAN	DEVELOPMENTAL EVALUATION OF MICROBIAL BIOASSAYS FOR AQUATIC HERBICIDES, PESTICIDES AND HEAVY METALS	MCFETERS, G.	80725601	NEW	79/09/26	$110,000
** FELLOWSHIPS **						
BOZEMAN BOZEMAN	BIOLOGY	MONTANA STATE UNIV.	91139801	NEW	79/08/21	$6,000
NELSON, R. BOZEMAN	CIVIL ENGINEERING	MONTANA STATE UNIV.	91146001	NEW	79/07/17	$6,000
RUBICH, MICHAEL BOZEMAN	CIVIL ENGINEERING	MONTANA STATE UNIV.	91147801	NEW	79/08/10	$2,500

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M O N T A N A					
** FELLOWSHIPS **						
SINNOTT, JAY M BOZEMAN	CIVIL ENGINEERING	MONTANA STATE UNIV.	91148701	NEW	79/08/02	$2,500

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
		NEBRASKA				
** RESEARCH **						
CREIGHTON UNIV. OMAHA	OZONE EXPOSURE AND PULMONARY METABOLIC EFFECTS OF MEDIATORS AND HORMONES	WELLS, I. C.	80458502	INCR	79/04/19	$40,000
** DEMONSTRATION **						
LINCOLN DEPT OF ENVIRONMENTAL CONTROL LINCOLN	COOPERATIVE AGREEMENT (TYPE B) BETWEEN NEBRASKA AND EPA TO: EXPAND VEHICLE NOISE ENFORCEMENT	ROBINSON,GENE	80698901	NEW	79/08/28	$26,473

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

N E V A D A

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
DESERT RESEARCH INST. RENO	MONITORING THE IMPACTS OF GEOTHERMAL DEVELOPMENT OF GROUND WATER SYSTEMS	HESS, J.	80645701	INCR	79/06/26	$130,000
NEVADA MENTAL HEALTH INST. RENO	CHROMOSOME STUDIES IN HUMAN SUBJECTS EXPOSED TO ARSENIC	VIG, B.	80566501	INCR	79/05/31	$13,050
NEVADA, UNIV. OF LAS VEGAS	REMOTE SENSING TO DETERMINE HORIZONTAL DISTRIBUTION OF CHLOROPHYLL & SURFACE CURRENTS LAS VEGAS BAY	BEACON, J. E.	80504501	INCR	79/06/19	$4,082
NEVADA, UNIV. OF LAS VEGAS	ENVIRONMENTAL IMPACT OF TRACEMETAL INTERACTION: LEAD, CADMIUM AND ARSENIC. AN APPROACH FOR BIOMONI	YOUSEF, M.	80641101	NEW	79/04/18	$49,952

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	N E W H A M P S H I R E					
** RESEARCH **						
DARTMOUTH COLLEGE HANOVER	IMPACT OF RESIDENTIAL WOOD BURNING ON AMBIENT AIR QUALITY	HORNIG, J.	80670701	NEW	79/08/01	$32,000
MANCHESTER WATER WORKS MANCHESTER	INVESTIGATION OF A FLUID BED CARBON REGENERATION SYSTEM AT MANCHESTER	KITTREDGE, D.	80537102	CONT	79/05/16	$89,600
** DEMONSTRATION **						
NEW HAMPSHIRE BUREAU OF OCCUP HEALTH CONCORD	A COOPERATIVE AGREEMENT (TYPE B) BETWEEN THE STATE OF NH THE U.S. EPA TO DEVELOP A STATE NOISE CONTR	HILGEMEIER, M.	80697801	NEW	79/08/28	$25,000

NEW JERSEY

APPLICANT / MUNICIPALITY	PROJECT DIRECTOR / FELLOW / TITLE	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
** RESEARCH **					
NEW JERSEY INSTITUTE OF TECH, NEWARK	BOZZELLI, J. TOXIC ORGANIC VAPORS IN THE AIR	80627102	CONT	79/09/04	$50,000
NEW JERSEY STATE DEPT. OF HEALTH, TRENTON	SCHULZE, T. NEW JERSEY EPIDEMIOLOGIC STUDIES PROGRAM - PESTICIDES	80686501	NEW	79/04/30	$220,326
PRINCETON UNIV., PRINCETON	ANTAL,M.J. PYROLYSIS OF AGRICULTURAL RESIDUES & FEEDLOT WASTES IN REACTIVE STEAM ATMOSPHERE	80483602	INCR	79/04/10	$19,980
PRINCETON UNIV., PRINCETON	OLLIS, DAVID MICROBIAL CONVERSIONS OF DELETERIOUS MOLECULES: KINETIC MODELS FOR AQUATIC ENVIRONMENTS	80620802	CONT	79/08/28	$70,000
RUTGERS UNIV., NEW BRUNSWICK	BRENNAN, E. PAN CONCENTRATION IN AMBIENT AIR IN NEW JERSEY	80582702	CONT	79/04/27	$12,014
RUTGERS UNIV., NEW BRUNSWICK	FLOWER, F. INVESTIGATION OF FACTORS INVOLVED IN ADAPTATION OF WOODY SPECIES TO CONDITIONS OF COMPLETED REFUSE	80590701	INCR	79/05/23	$31,739
RUTGERS UNIV., NEW BRUNSWICK	KAPLOVSKY, J. EVALUATION AND DEVELOPMENT OF TEMPERATURE CONTROL STRATEGIES TO MAXIMIZE ORGANIC MATTER DEGRADATION	80682901	NEW	79/08/30	$60,000
** DEMONSTRATION **					
NEW JERSEY STATE DEPT OF ENVRN PROT, TRENTON	KOTCH,ROBERT ALLENTOWN LAKE RESTORATION: SHORELINE PROTECTION, DREDGING & WATER QUALITY MONITORING	80658301	NEW	79/08/31	$245,730
NEW JERSEY STATE DEPT OF ENVRN PROT, TRENTON	PREUSS, PETER COOPERATIVE AGREEMENTS FOR STATE TOXIC SUBSTANCES CONTROL PROJECTS	80685401	NEW	79/04/06	$453,947
NEW JERSEY STATE DEPT OF ENVRN PROT, WEST TRENTON	DIPOLVERE,EDWARD COOPERATIVE AGREEMENT BETWEEN NEW JERSEY DEPT OF ENVRN PROTECTION AND EPA	80696201	NEW	79/08/28	$35,109

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
		NEW JERSEY				
** DEMONSTRATION **						
NEW JERSEY STATE DEPT OF ENVRN PROT WEST TRENTON	SIMPLIFIED ON-ROAD NOISE ENFORCEMENT CONTROL STRATEGY SCREEN	DIPOLVERE, EDWARD	80656301	NEW	79/08/28	$34,440
TEANECK, TOWNSHIP OF TEANECK	TEANECK NOISE ASSESSMENT & COMMUNITY-WIDE EDUCATION PROJECT. (COOPERATIVE AGREEMENT)	PREISS,ROD	80723001	NEW	79/08/28	$14,250
** TRAINING **						
AMERICAN LITTORAL SOCIETY HIGHLANDS	404 PUBLIC EDUCATION PROGRAM -- THIS 12 MONTH PROGRAM WILL INCREASE PUBLIC AWARENESS	ROWAN, DANA	90107901	NEW	79/09/26	$40,000
RUTGERS STATE UNIV. NEW BRUNSWICK	DEVELOPMENT OF COMPUTER PROGRAM TRAINING SIMULATOR FOR ACTIVATED SLUDGE TREATMENT PLANT	CIRELLO, J.	90104801	NEW	79/09/18	$18,927
RUTGERS UNIV. NEW BRUNSWICK	AIR POLLUTION TRAINING	KAPLOVSKY, A.	90082502	CONT	79/08/23	$80,400
RUTGERS UNIV. NEW BRUNSWICK	QUIET COMMUNITIES, STATE AND LOCAL CAPACITY BUILDING ASSISTANCE	KAPLOVSKY, A.	90099501	NEW	79/08/28	$30,000
SOUTH BR. WATERSHED ASSOC INC LEBANON	DEVELOPMENT OF A GROUNDWATER CURRICULUM GUIDE FOR SCHOOL AND COMMUNITY GROUP APPLICATION CORE CURRIC	LEONCAVALLO, J.	90107301	NEW	79/09/26	$2,100
** FELLOWSHIPS **						
ARCENAL, ARMANDO NEWARK	ENVIRONMENTAL ENGINEERING	NEW JERSEY INST. OF TECH.	91144201	NEW	79/09/04	$714
BARBER, RICHARD NEW BRUNSWICK	CIVIL ENGINEERING	RUTGERS STATE UNIV.	91149601	NEW	79/08/15	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	NEW JERSEY					
** FELLOWSHIPS **						
BLACKWELL, C. TRENTON	BIOLOGY	MERCER COMMUN. COLLEGE	91145401	NEW	79/08/15	$72
BOEHLE, WILLIAM NEWARK	CIVIL AND ENVIRONMENTAL ENGINEERING	NEW JERSEY INST.	91125701	INCR	79/08/10	$408
KECSKES, R. NEW BRUNSWICK	ENVIRONMENTAL SCIENCE	RUTGERS STATE UNIV.	91145001	NEW	79/08/10	$638
KORNDOERFER, A. NEW BRUNSWICK	BIOLOGY	RUTGERS STATE UNIV.	91145701	NEW	79/08/27	$388
PALMER, DENNIS TRENTON	BIOLOGY & CHEMICAL	NEW JERSEY INST.	91148301	NEW	79/08/21	$549
RUSS, ROY E. TRENTON	URBAN & ENVIRONMENTAL PLANNING	LIVINGTON COLLEGE	91144901	NEW	79/09/06	$338
SCHILLER, C. TRENTON	INDUSTRIAL ENGINEERING	TRENTON STATE COLLEGE	91145201	NEW	79/09/05	$220
VALENTE, NICHOLAS J. TRENTON	URBAN STUDIES & COMM. DEVELOP	RUTGERS STATE UNIV.	91145101	NEW	79/09/26	$688
VENETIS, W. NEWARK	CIVIL ENGINEERING	NEW JERSEY INST OF TECH	91145601	NEW	79/08/10	$870
WAGNER, K. NEW BRUNSWICK	ENVIRONMENTAL BIOLOGY	RUTGERS STATE UNIV.	91145301	NEW	79/09/26	$1,811

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

N E W   M E X I C O

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
NEW MEXICO, UNIV. OF ALBUQUERQUE	PROPOSAL TO ASSESS POLLUTION FO GROUNDWATER AS A CONSEQUENCE OF UNDER GROUND COAL GASIFICATION	WALTERS, E.	80630302	CONT	79/08/30	$50,000

** DEMONSTRATION **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
SANTA FE HEALTH & ENVIRONMENT DEPT SANTA FE	COOPERATIVE AGREEMENT (TYPE B) NOISE CONTROL-NEW MEXICO	LIBBERTON,JAMES	80699301	NEW	79/08/28	$17,000

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
NEW MEXICO STATE UNIV. LAS CRUCES	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	BARKLEY, W.	90092001	INCR	79/09/25	$9,304

** FELLOWSHIPS **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
OLAECHEA, P ALBUQUERQUE	CHEMICAL ENGINEERING	NEW MEXICO, UNIV. OF	91136501	NEW	79/06/28	$2,400

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

N E W Y O R K

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
AMERICAN SOCIETY OF CIVIL ENGRS. NEW YORK	FEASIBILITY OF AUTOMATED COMBINED SEWER SYSTEM ALLIED WITH METRO FLOOD WARNING SYSTEM	MORGAN, R.	80670201	NEW	79/06/28	$15,000
CLARKSON COLLEGE OF TECH. POTSDAM	ANALYSIS OF PHOSPHORUS REMOVAL IN GREAT LAKES BASIN MUNICIPAL TREATMENT PLANTS	DEPINTO, J.	80681701	NEW	79/06/21	$70,302
CORNELL UNIV. ITHACA	NATIONAL STATISTICAL ASSESSMENT OF DOMESTIC RURAL WATER	FRANCIS, J. D.	80490001	INCR	79/04/16	$8,500
			80490001	INCR	79/09/19	$255,148
CORNELL UNIV. ITHACA	RISK ASSESSMENT METHODOLOGY FOR SLUDGE MANAGEMENT DECISION	JUTRO, PETER R.	80578101	INCR	79/08/08	$17,109
CORNELL UNIV. ITHACA	WASTEWATER TREATMENT WITH PLANTS IN NUTRIENT FILMS	JEWELL, W.	80713401	NEW	79/08/28	$94,878
DUDLEY OBSERVATORY SCHENECTADY	FIELD INSTRUMENTATION FOR REAL-TIME MONITORING OF DUST IN THE AIR	PATASHNICK, H.	80522202	INCR	79/07/31	$29,030
INTERNATIONAL LEAD ZINC RES ORG INC NEW YORK	CADMIUM RECOVERY FROM ELECTROPLATING WASTES	COOK, ALBERT	80666201	NEW	79/08/01	$64,000
MANHATTAN COLLEGE BRONX	MATHEMATICAL MODELS OF FATES OF POLLUTANTS IN ESTUARIES	O'CONNOR, D.	80456303	INCR	79/07/10	$69,713
MANHATTAN COLLEGE BRONX	ANALYSIS OF NUTRIENT AND TOXIC CHEMICAL FLUXES IN GREAT LAKES SEDIMENTS	DI TORO, D.	80522903	CONT	79/06/25	$222,467

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	N E W Y O R K					
** RESEARCH **						
MANHATTAN COLLEGE BRONX	MODELING OF TOXIC SUBSTANCES IN GREAT LAKES FOOD CHAINS	THOMANN, R.	80591602	CONT	79/05/23	$324,722
MANHATTAN COLLEGE BRONX	ANALYSIS OF URBAN RUNOFF LOADS FROM COMBINED SEWER OVERFLOWS	MUELLER, J.	80651901	NEW	79/05/23	$40,000
MANHATTAN COLLEGE BRONX	DETERMINATION OF THE INSTABILITY OF TREATED MUNICIPAL SLUDGES	JERIS, J.	80680901	NEW	79/09/05	$111,367
MANHATTAN COLLEGE BRONX	DEVELOPMENT OF METHODS TO DEFINE WATER QUALITY EFFECTS OF URBAN RUNOFF	MANCINI, J.	80682801	NEW	79/07/20	$20,000
NEW YORK STATE DEPT. OF ENVRN CONSERV ALBANY	AGRICULTURAL NON-POINT SOURCE CONTROL OF PHOSPHORUS AND SEDIMENT - A WATERSHED EVALUATION	CARLSON, G.A.	80683901	NEW	79/08/28	$190,000
NEW YORK STATE DEPT. OF HEALTH ALBANY	VIRUSY- SOIL INTERACTIONS	PARHAM, T.	80474303	CONT	79/09/26	$166,458
NEW YORK STATE DEPT. OF HEALTH ALBANY	EFFECTS ENVRN FACTORS/THEIR INTERACTIONS PHYTOPLANKTON GROWTH UNDER STEADY-STATE/TRANSCIENT COND	RHEE,G.	80682001	NEW	79/07/30	$98,000
NEW YORK STATE ENERGY RES & DEV. ALBANY	ENVIRONMENTAL ASSESSMENT OF COAL WASTE IN OCEAN WATERS	WILSON, S.	80634101	INCR	79/04/24	$75,000
NEW YORK UNIV. NEW YORK	TWIN SCREW ACID HYDROLYSIS REACTOR DEVELOPMENT AND OPTIMIZATION FOR ONE TON/DAYWASTE CELLULOSE-GLUCO	BRENNER, W.	80523903	CONT	79/07/11	$328,295
NEW YORK UNIV. MEDICAL CTR. NEW YORK	ANALYSIS OF THE RELATIONSHIPS BETWEEN HAZE, OZONE, SULFATE AND TRANSPORT (HOST)	LIOY, PAUL	80659301	NEW	79/07/10	$45,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	NEW YORK					
** RESEARCH **						
ONONDAGA CNTY., NORTH SYRACUSE	EVALUATION OF URBAN RUNOFF AND COMBINED SEWER OVERFLOW MUTAGENICITY	KARANIK, JOHN	80664001	NEW	79/07/17	$28,234
RENSSELAER POLYTECHNIC INST., TROY	MODELING TRANSPORT AND BEHAVIOR OF PESTICIDES AND OTHER TOXIC ORGANIC MATERIALS IN AQUATIC ENVIRON	PARK, R.	80482003	INCR	79/05/25	$84,585
RENSSELAER POLYTECHNIC INST., TROY	PREDICTION OF PREFERENTIAL SELECTIVITY FOR ACTIVATED CARBON ADSORPTION OF TRACE (HOMOLOG) CONTAMINANT	BELFORT, G.	00664801	NEW	79/08/03	$109,182
ROCHESTER, UNIV. OF, ROCHESTER	MICROWAVES, HYPERTHERMIA & HUMAN LEUKOCYTE FUNCTION	NAGLE, J.	80639001	NEW	79/08/06	$35,500
ROCHESTER, UNIV. OF, ROCHESTER	CONFERENCE: POLLUTED ACID RAIN	MILLER, MORTON	80677201	NEW	79/07/16	$5,000
SUNY RESEARCH FON, ALBANY	PLANKTONIC FOOD CHAINS & IMPACT OF PCB'S IN GRAND TRAVERSE AND SAGINAW BAYS	MCNAUGHT, D.	80674201	NEW	79/06/28	$96,792
SYRACUSE RES. CORP., SYRACUSE	COOPERATIVE AGREEMENT FOR DEVELOPMENT OF AN ENVIRONMENTAL DATA BASE	HOWARD, PHILIP	80690201	NEW	79/09/26	$94,155
UNITED ENGINEERING TRUSTEES, INC., NEW YORK	ENGINEERING FOUNDATION CONFERENCE ON ENVIRONMENTAL ENGINEERING IN THE FOOD PROCESSING INDUSTRY	CARAWAN, ROY	80658901	NEW	79/05/24	$9,500
** DEMONSTRATION **						
NEW YORK STATE DEPT. OF ENVRN. CONSERV, ALBANY	DELAWARE PARK LAKE RESTORATION	BERLE,PETER	80425401	INCR	79/08/31	$1,393,000
NEW YORK STATE DEPT. OF ENVRN. CONSERV, ALBANY	TIVOLI LAKES RESTORATION PROJECT	BROMBERG, A. W.	80490601	INCR	79/09/05	$60,045

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	N E W Y O R K					
** DEMONSTRATION **						
NEW YORK STATE DEPT. OF ENVRN. CONSERV ALBANY	CONTROL OF EUTROPHICATION IN SCUDDERS POND	BROMBERG, A.	80578501	NEW	79/08/20	$40,000
NEW YORK STATE DEPT. OF ENVRN. CONSERV ALBANY	LOVE CANAL REMEDIAL MEASURES DEMONSTRATION	GODDARD, CHARLES	80678401	NEW	79/04/24	$4,000,000
NEW YORK STATE ENERGY RES. & DEV AUTH ALBANY	PILOT DEMONSTRATION & ENVRN. EVALUATION ON ARTICIFICAL REEF CONST. USING COAL COMBUSTION WASTES	WILSON, S.	80634101	INCR	79/09/19	$100,000
** TRAINING **						
ASSOCIATED UNIVERSITIES, INC. UPTON	ORGANIZATION OF TRAINING COURSES AND WORKSHOPS IN MUTAGENESIS, CARCINOGENESIS, GENETICS, AND INHALAT	DESMOND, J.	90094201	NEW	79/05/31	$47,604
			90094201	INCR	79/09/05	$52,006
CONFERENCE OF STATE SAN ENGRS TROY	WATER PROGRAM SECRETARIAT FOR CONFERENCE OF STATE SANITARY ENGINEERS	THOMPSON, M.	90104101	NEW	79/09/26	$92,990
CONFERENCE OF STATE SANITARY ENGRS TROY	MANAGEMENT OF STATE PUBLIC WATER SUPPLY PROGRAMS	THOMPSON, M.	90101001	NEW	79/07/16	$59,520
CONSUMER ACTION NOW S COUNCIL ON ENV. NEW YORK	DESIGNING A NATIONAL ENERGY EDUCATION PROGRAM FOR WOMEN	O NEILL, M.	90097001	NEW	79/06/22	$5,000
CORNELL UNIV. ITHACA	WATER QUALITY CONTROL ENGINEERING	GATES, CHARLES D.	90085201	INCR	79/08/20	$9,609
MANHATTAN COLLEGE BRONX	TRAINING PROFESSIONAL SPECIALISTS IN WATER POLLUTION CONTROL	JERIS, J.	90088601	INCR	79/08/13	$8,391

NEW YORK

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
** TRAINING **						
NATIONAL URBAN LEAGUE, INC. NEW YORK	SUPPORT OF A NATIONAL CONFERENCE ON URBAN ENVIRONMENT MODIFICATION WILL INCREASE FEDERAL FUNDING	DANELS, P.	90085601	INCR	79/09/27	$40,000
NEW YORK STATE DEPT. OF ENVRN CONSERV ALBANY	DEMONSTRATION OF A TWO YEAR AAS WATER QUALITY MONITORING PROGRAM	CAMPBELL, DANIEL J.	90054001	INCR	79/05/25	$64,075
NEW YORK STATE DEPT. OF ENVRN. CONSERV ALBANY	CONDUCT OF TRAINING PROGRAM; TROUBLESHOOTING OPERATION AND MAINTENANCE PROBLEMS AT WASTEWATER TREAT	CAMPBELL, DANIEL J.	90105801	NEW	79/09/05	$10,000
** FELLOWSHIPS **						
CATTO, WILLIAM SYRACUSE	ENVIRONMENTAL ENGINEERING	SYRACUSE UNIV.	91137101	NEW	79/06/28	$896
CUKROVANY, RICHARD M. TROY	ENGINEERING	RENESSELAER POLY INST.	91129801	INCR	79/08/20	$1,805
CURTIS, DAVID TROY	CIVIL AND ENVIRONMENTAL ENGINEERING	RENSSELAER POLY INST	91137901	NEW	79/06/26	$1,680
FERGUSON, DOUGLAS ALBANY	CIVIL ENGINEERING	RUSSELL SAGE COLLEGE	91137301	NEW	79/06/28	$765
FITZGERALD, DAVID BROOKLYN	CIVIL ENGINEERING	NEW YORK POLY INST	91137001	NEW	79/06/28	$1,159
GUPTA, VIRENDRA ROCHESTER	CIVIL ENGINEERING	ROCHESTER, UNIV. OF	91147401	NEW	79/07/30	$675
HARSTAD,RALPH E. ROCHESTER	CIVIL ENGINEERING	ROCHESTER,UNIV.OF	91137801	NEW	79/06/28	$675

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** FELLOWSHIPS **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
HICKEY, PAUL J. TROY	BIOLOGY/MICROBIOLOGY	RENESSELAER POLY INST.	91138001	NEW	79/06/29	$1,260
HYATT, WESLEY NEW PALTZ	HUMANITIES	SUNY AT NEW PALTZ	91137601	NEW	79/07/05	$450
KUNNY, ANTHONY BRONX	CIVIL ENGINEERING	MANHATTAN COLLEGE	91136801	NEW	79/06/28	$306
LEEMHUIS, DAVID TROY	CHEMICAL ENGINEERING	RENSSELAER POLY INST	91141201	NEW	79/08/24	$962
MAJDALANY, CAROL ITHACA	ENVIRONMENTAL STUDIES	CORNELL UNIV.	91150901	NEW	79/08/27	$2,500
MELLOR, GARY BROOKLYN	ENVIRONMENTAL SCIENCE	POLYTECHNIC INSTITUTE	91142801	NEW	79/08/31	$1,769
MERGES, PAUL TROY	ENVIRONMENTAL ENGINEERING	RENESSELAER POLY INST.	91144101	NEW	79/08/13	$2,225
PAUSE, R. ALBANY	CHEMISTRY	NEW YORK STATE UNIV.	91145901	NEW	79/07/26	$678
RICH, NICHOLAS ROCHESTER	ENVIRONMENTAL CONSERVATION	ROCHESTER, UNIV. OF	91148901	NEW	79/08/06	$675
SCHMITT, ALLAN TROY	CIVIL ENGINEERING	RENESSELAER POLY INST.	91143001	NEW	79/09/06	$1,810

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FEL'	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	NEW YORK					
** FELLOWSHIPS **						
SCHREIBER, J. ALBANY	CHEMISTRY	ALBANY MEDICAL COLLEGE	91136101	NEW	79/07/05	$1,400
TUCHMAN, B. NEW YORK	ECONOMICS	COLUMBIA UNIV.	91121801	INCR	79/05/24	$142
TUCKER, C. TROY	CIVIL AND SANITARY ENGINEERING	RENESSELAER POLY INST.	91146501	NEW	79/08/13	$2,225
VANDERBROOK, S. SYRACUSE	CIVIL ENGINEERING	SYRACUSE UNIV.	91150501	NEW	79/09/05	$6,000
ZAGORSKI, FRANCIS TROY	FOREST ENGINEERING	RENESSELAER POLY INST.	91147601	NEW	79/08/31	$1,810
** DEMONSTRATION **						
NEW YORK STATE DEPT. OF ENVRN CONSERV NEW YORK	COOPERATIVE AGREEMENT FOR STATE TOXIC SUBSTANCES CONTROL PROJECTS	HETLING, LEO	80686101	NEW	79/04/06	$348,000

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APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

N O R T H   C A R O L I N A

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
BOWMAN GRAY SCHOOL OF MEDICINE WINSTON-SALEM	HERPES SIMPLEX VIRUS TYPE 2 - CANCER PROMOTER INTERACTIONS	KUCERA, L.	80707301	NEW	79/08/15	$50,000
DUKE UNIV. DURHAM	DEVELOPMENT OF AN IN VITRO MODEL FOR ORGANOPHOSPHORUS -INDUCES DELAYED NEUROTOXICITY	GRAHAM, D.	80640001	NEW	79/05/14	$79,723
DUKE UNIV. DURHAM	STUDIES RELATED TO THE ORGANIC CHEMICAL ANALYSIS OF INDUSTRIAL SAMPLES	LOCHMULLER, C.	80691601	NEW	79/08/01	$30,000
EAST CAROLINA UNIV. GREENVILLE	AQUATIC FOOD WEB DYNAMICS IN A FLOODPLAIN SWAMP SYSTEM	QUEEN, WM.	80698801	NEW	79/08/23	$37,420
NORTH CAROLINA A&T STATE UNIV. GREENSBORO	INVESTIGATION OF THE FLOW OF AN IMMISCIBLE LIQUID POLLUTANT IN A STREAM OF WATER	GOSWAMI, D.	80665701	NEW	79/08/15	$79,869
NORTH CAROLINA STATE UNIV. RALEIGH	TEST AND EVALUATION OF A PILOT PLANT COAL GASIFIER-GAS CLEANING FACILITY	FERRELL, J.	80481102	INCR	79/04/16	$395,250
NORTH CAROLINA STATE UNIV. RALEIGH	MODELING OF ATMOSPHERIC FLOWS AND POLLUTANT DISPERSAL OVER AND AROUND HILLS AND BUILDINGS	ARYA, S.	80559503	CONT	79/08/31	$58,096
NORTH CAROLINA STATE UNIV. RALEIGH	TOXIC AND PRIORITY POLLUTANT ORGANICS IN LAND APPLICATION SYSTEMS	OVERCASH, M.	80642101	NEW	79/08/21	$216,881
NORTH CAROLINA STATE UNIV. RALEIGH	COOPERATIVE AGREEMENT FOR RESEARCH ON THE EFFECTS OF ACID PRECIPITATION ON AQUATIC AND TERRESTRIAL	COWLING, ELLIS	80691201	NEW	79/08/02	$500,000
NORTH CAROLINA, UNIV. OF CHAPEL HILL	CHLORINATION OF AQUATIC HUMIC SUBSTANCES	CHRISTMAN, R.	80443003	INCR	79/07/06	$4,779

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	NORTH CAROLINA					
** RESEARCH **						
			80443003	INCR	79/08/30	$21,745
NORTH CAROLINA, UNIV. OF CHAPEL HILL	EFFECT OF ETIOLOGICALLY-DEFINED RESPORATORY INFECTIONS ON LUNG FUNCTION & ITS GROWTH	COLLIER, A.	80457703	INCR	79/08/15	$22,000
NORTH CAROLINA, UNIV. OF CHAPEL HILL	ASSESSMENT AND CONTROL OF WASTEWATER CONTAMINANTS ORIGINATING FROM THE PRODUCTIONOF SYNTHETIC FUELS	SINGER, P.	80491704	CONT	79/06/21	$371,915
			80491704	INCR	79/09/26	$10,000
NORTH CAROLINA, UNIV. OF CHAPEL HILL	NEW APPROACHES TO QUANTITATING THE PULMONARY EFFECTS OF INHALED POLLUTANTS	BROMBERG, P.	80518403	CONT	79/08/10	$149,494
NORTH CAROLINA, UNIV. OF CHAPEL HILL	OUTDOOR SMOG CHAMBER EXPERIMENTS TO TEST PHOTOCHEMICAL MODELS	JEFFRIES, H.	80584302	CONT	79/04/24	$89,999
NORTH CAROLINA, UNIV. OF CHAPEL HILL	POTENTIAL ENVIRONMENT HAZARDS OF PESTICIDAL VIRUSES	HUAN, ENG-SHANG	80621002	CONT	79/09/07	$70,467
NORTH CAROLINA, UNIV. OF CHAPEL HILL	METHODS FOR ENTERIC CONCENTRATION FROM RAW AND FINISHED DRINKING WATER SUPPLIES	SOBSEY, MARK D.	80667701	NEW	79/05/31	$91,028
			80667701	INCR	79/08/20	$4,885
RESEARCH TRIANGLE INST. RES TRIANGLE PAR	SYNTHETIC FUELS RESEARCH PROGRAM	MIXON, F. O.	80497904	CONT	79/08/27	$600,000

NORTH CAROLINA

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
** RESEARCH **						
RESEARCH TRIANGLE INST. RES TRIANGLE PAR	RESEARCH IN DEVICES FOR PARTICULATE CONTROL	RANADE, MADHAV	80589702	CONT	79/05/18	$493,510
RESEARCH TRIANGLE INST. RES TRIANGLE PAR	DETERMINATION OF POLYCHLORINATED BIPHENYLS AND OTHER HALOGENATED HYDROCARBONS IN HUMAN BIOLOGICAL	PELLIZZARI, E	80716701	NEW	79/09/06	$119,997
** TRAINING **						
DUKE UNIV. DURHAM	REGIONAL TOXIC PUBLIC PARTICIPATION PROGRAM IN NORTH CAROLINA	RICHARDSON, C.	90105201	NEW	79/09/12	$20,000
LEAGUE OF WOMEN VOTERS OF N.C. DURHAM	REGIONAL TOXIC PUBLIC PARTICIPATION PROGRAM	KIMMEL, JUNE	90103801	NEW	79/08/31	$20,000
NORTH CAROLINA STATE UNIV. RALEIGH	REGIONAL UNIVERSITY NOISE TECHNICAL ASSISTANCE CENTER	HART, F. D.	90098801	NEW	79/08/28	$30,000
NORTH CAROLINA, UNIV. OF CHAPEL HILL	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	CHARLES M. WEISS	90085101	INCR	79/08/27	$9,414
** FELLOWSHIPS **						
ALEXANDER, ROBERT RALEIGH	CIVIL ENGINEERING	NORTH CAROLINA STATE	91144001	NEW	79/07/30	$6,000
HAGARTY, EDWARD RALEIGH	CIVIL ENGINEERING	NORTH CAROLINA, UNIV.	91139001	NEW	79/08/06	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	NORTH DAKOTA					
** DEMONSTRATION **						
NORTH DAKOTA STATE DEPT. OF HEALTH BISMARCK	A COOPERATIVE AGREEMENT BETWEEN THE STATE OF NORTH DAKOTA AND THE U.S. EPA TO DEVELOP A STATE NOISE	MUNSON, S.	80698201	NEW	79/08/28	$28,008

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
O H I O						
** RESEARCH **						
BATTELLE MEMORIAL INST. COLUMBUS	KINETICS AND MECHANISMS OF NITRATE FORMATION IN PHOTOCHEMICAL SMOG	SPICER, CHESTER	80581202	CONT	79/08/15	$165,000
			80581202	INCR	79/09/26	$154,582
BATTELLE MEMORIAL INST. COLUMBUS	TECHNICAL CONFERENCE ON ENERGY FROM WASTES: 1979 UPDATE	SMITHSON, G.	80665301	NEW	79/04/18	$22,675
CENTRAL STATE UNIV. WILBERFORCE	ANALYSIS FOR CYANIDE IN WATER, SEDIMENTS AND SLUDGES.	SCHLUETER, A.	80637601	NEW	79/09/18	$30,732
CHILDREN'S HOSPITAL RES. FDN. COLUMBUS	A LONGITUDINAL EVALUATION OF LEAD BODY BURDEN IN GROWING CHILDREN	LUBIN, A.	80416803	INCR	79/08/27	$22,775
CINCINNATI INST. CINCINNATI	OHIO RIVER VALLEY HERITAGE RESEARCH PROJECT	COLEMAN, E. P.	80613201	INCR	79/07/10	$40,000
CINCINNATI, CITY OF CINCINNATI	FEASIBILITY STUDY OF GRANULAR ACTIVATED CARBON ADSORPTION AND ON SITE REGENERATION	MILLER, R.	80544301	INCR	79/05/23	$28,410
CINCINNATI, CITY OF CINCINNATI	FEASIBILITY STUDY OF GRANULAR ACTIVATED CARBON ADSORPTION AND ON-SITE REGENERATION	MILLER, R.	80544302	CONT	79/06/19	$778,590
CINCINNATI, UNIV. OF CINCINNATI	PATHOGENICITY OF MUNICIPAL SOLID WASTE LEACHATE	SCARPINO, P.	80473302	INCR	79/09/05	$54,998
CINCINNATI, UNIV. OF CINCINNATI	EVALUATION OF THE HEALTH RISK ASSOC. WITH THE TREATMENT AND DISOSAL OF MUN. WASTEWATER SLUDGE	CLARK, C.	80544501	INCR	79/05/25	$125,905

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	OHIO					
** RESEARCH **						
CINCINNATI, UNIV. OF / CINCINNATI	IN VIVO METHODS FOR ASSESSING NEUROTOXICITY	BORNSCHEIN, R.	80569302	CONT	79/08/15	$58,711
CINCINNATI, UNIV. OF / CINCINNATI	MECHANISMS OF INTESTINAL CADMIUM ABSORPTION IN RATS	FOULKES, E.	80584002	CONT	79/05/09	$60,318
CINCINNATI, UNIV. OF / CINCINNATI	NEW INERTIAL PARTICLE-SIZE CLASSIFICATION TECHNIQUES FOR SOURCE EVALUATIONS	WILLEKE, KLAUS	80597102	CONT	79/08/22	$36,508
CINCINNATI, UNIV. OF / CINCINNATI	EFFECT OF PARTICULATES ON DISINFECTION OF ENTEROVIRUSES IN WATER BY CHLORAMINES	SCARPINO, P.	80624002	CONT	79/09/04	$95,087
CINCINNATI, UNIV. OF / CINCINNATI	EPIDEMIOLOGICAL STUDY OF WOMEN EXPOSED TO STYRENE AND REPRODUCTIVE DYSFUNCTION	LEMASTER, G.	80666901	NEW	79/06/22	$135,541
CINCINNATI, UNIV. OF / CINCINNATI	DIE-OFF STUDIES OF PARASITE EGGS UPON STORAGE IN SLUDGE	KANESHIRO, E.	80695401	NEW	79/08/02	$174,419
DAYTON, UNIV. OF / DAYTON	HIGH-TEMPERATURE DEGRADATION CHARACTERISTICS OF HAZARDOUS ORGANIC WASTES-A LABORATORY APPROACH	DUVALL, D.	80511701	INCR	79/07/30	$27,000
DAYTON, UNIV. OF / DAYTON	SELECTIVE ENHANCEMENT OF REFUSE DERIVED FUELS	HECHT, N .	80653501	NEW	79/05/18	$111,734
HEIDELBERG COLLEGE / TIFFIN	FLUVIAL TRANSPORT & PROCESSING OF SEDIMENTS & NUTRIENTS FROM NONPOINT SOURCES	BAKER, D.	80543601	INCR	79/06/25	$11,211
HEIDELBERG COLLEGE / TIFFIN	FLUVIAL TRANSPORT AND PROCESSING OF SEDIMENTS AND NUTRIENTS FROM NONPOINT SOURCES	BAKER, D.	80543602	CONT	79/08/30	$21,375

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	O H I O					
** RESEARCH **						
NATIONAL WATER WELL ASSOC. WORTHINGTON	DEVELOPMENT OF NATIONAL LIBRARY CENTER FOR WATER WELL TECHNOLOGY	LEHR, JAY	80586302	CONT	79/05/21	$100,000
NATIONAL WATER WELL ASSOC. WORTHINGTON	COMPUTER SIMULATION TO ASSESS THE ENVIRONMENTAL IMPACT OF RESIDENTIAL GROUND WATER HEAT PUMP UTILIZA	LEHR, J.	80646501	NEW	79/07/09	$99,073
OHIO AGR. RES & DEV. CTR. WOOSTER	INTEGRATED PEST MANAGEMENT ON SELECTED GREENHOUSE VEGETABLE AND FLORICULTURAL CROPS	LINDQUIST, R.	80557102	CONT	79/04/16	$36,395
OHIO AGR. RES & DEV. CTR. WOOSTER	ULTIMATE USES OF SEWAGE SLUDGE: NON-FOOD CHAIN	WEIDENSAUL, C.	80667201	NEW	79/08/02	$341,754
OHIO STATE UNIV. COLUMBUS	CHLORINATED HYROCARBONS:	HART, RONALD	80500803	CONT	79/09/19	$49,962
OHIO STATE UNIV. COLUMBUS	THE CLINICAL PHARMOCOLOGY/TOXICOLOGY OF CHLORINE DIOXIDE AND ITS PRODUCTS	BIANCHINE, J.	80564302	CONT	79/09/26	$300,000
OHIO STATE UNIV. COLUMBUS	CHEMICAL CARCINOGEN INDUCED NEOPLASTIC TRANSFORMATION OF HUMAN EPITHELIAL CELLS	MILO, GEORGE	80663801	NEW	79/09/11	$210,000
OHIO STATE UNIV. RES. FDN. COLUMBUS	LIMNOLOGICAL INVESTIGATION OF WATER QUALITY AND FISH LARVAE IN LAKE ERIE	HERNDENDORF,C.	80461203	INCR	79/07/10	$139,300
WRIGHT STATE UNIV. DAYTON	EXAMINATION OF SEDIMENT EMMISION AND ACCUMULATION OF DISSOLVED GASES IN LAKE ERIE HYPOLIMNION	ADAMS, D.	80675701	NEW	79/07/06	$15,000
** DEMONSTRATION **						
AKRON, CITY OF (HEALTH DEPT) AKRON	COOPERATIVE AGREEMENT CITY OF AKRON HEALTH DEPT (AKRON REGIONAL AIR POLL CONTROL AGENCY)	KECK, C. W.	80698701	NEW	79/08/28	$12,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	OHIO					
** DEMONSTRATION **						
FARM BUREAU DEVELOPMENT CORP. COLUMBUS	DEMONSTRATION PROGRAM TO SHOW OHIO LANDOWNERS & MUNICIPALITIES ACCEPTABLE SYSTEM FOR APPLYING SLUDGE	HILL, J. K.	80518901	INCR	79/09/26	$200,000
MENTOR, CITY OF MENTOR	CITY NOISE CONTROL. TO PURCHASE GENERAL PURPOSE SOUND LEVEL METERS AND SOUND LEVEL CALIBRATORS.	LICHTER,WILLIAM	80697001	NEW	79/08/28	$2,200
OHIO DEPT OF HEALTH COLUMBUS	WE PLAN TO DETERMINE THE LEVEL AND EXTENT OF NOISE PROBLEMS WITHIN THE STATE OF OHIO.	MARTIN,RICHARD	80695201	NEW	79/08/28	$27,293
** TRAINING **						
AMERICAN INDUSTRIAL HYGIENE ASSOC AKRON	WORKSHOP & PUBLICATION ON ENVRN OCCUPATIONAL HEALTH HAZARDS	BODDEN, K.	90099801	NEW	79/08/02	$2,000
BATTELLE MEMORIAL INST. COLUMBUS	DEVELOPMENT OF A MODEL WATER QUALITY AREA TRAINING CENTER	ROSINGER, G.	90095001	NEW	79/04/24	$115,000
CINCINNATI, UNIV. OF CINCINNATI	GRADUATE TRAINING IN AIR POLLUTION	PATTISON, J.	90068403	CONT	79/07/30	$65,260
CINCINNATI, UNIV. OF CINCINNATI	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	EYE, J.	90085801	INCR	79/09/05	$7,657
CINCINNATI, UNIV. OF CINCINNATI	WATER POLLUTION CONTROL PROFESSIONAL TRAINING GRANT FOR ADDITIONAL FUNDS FOR A WORKSHOP	FOWLER, T.	90094001	INCR	79/09/05	$27,395
NATIONAL WATER WELL ASSOC. WORTHINGTON	UIC REGULATIONS TRAINING PROGRAM	GASS, TYLER	90098101	NEW	79/08/20	$23,285
OHIO STATE UNIV. RES. FDN. COLUMBUS	INFORMATION COLLECTION, ANALYSIS AND DISSEMINATION (EPA)	HOWE, ROBERT	90071003	CONT	79/09/18	$230,500

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	O H I O					
** TRAINING **						
TOLEDO, UNIV. OF TOLEDO	PROFESSIONAL TRAINING SPONSORED BY USEPA ST THE UNIVERSITY OF TOLEDO	BENNETT, G.	90083501	INCR	79/09/19	$3,180
** FELLOWSHIPS **						
KHOURY, C. CLEVELAND	BIOLOGY	CASE WESTERN RESERVE	91136301	NEW	79/06/28	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

O K L A H O M A

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
ASSOC. OF CENTRAL OKLA. GOVTS. OKLAHOMA CITY	GARBER-WELLINGTON GROUND WATER AQUIFER RESEARCH	TAYLOR, Z. D.	80713101	NEW	79/09/26	$653,558
OKLAHOMA STATE UNIV. STILLWATER	BIO-ORGANIC INDICATORS OF GROUND-WATER POLLUTION	MORRILL, L.	80461304	CONT	79/08/07	$146,820
OKLAHOMA STATE UNIV. STILLWATER	PROJECT TO DEVELOP AND EVALUATE AN ENVRN. TECH. TRANSFER SYSTEM	FITE, R.	80484702	INCR	79/06/21	$10,000
			80484702	INCR	79/09/05	$1,200
OKLAHOMA STATE UNIV. STILLWATER	TREATMENT CAMPATIBILITY OF MUNICIPAL WASTE AND BIOLOGICAL HAZARDOUS INDUSTRIAL COMPOUNDS	KINCANNON, DON	80524201	INCR	79/05/23	$48,858
OKLAHOMA STATE UNIV. STILLWATER	POLYNUCLEAR AROMATIC COMPOUNDS SYNTHESIS AND PURIFICATION	EISENBRAUN, E.	80541903	CONT	79/04/24	$29,925
OKLAHOMA STATE UNIV. STILLWATER	A NEW SAMPLING THEORY FOR THE MEASUREMENT OF ECOSYSTEM STRUCTURE AND FUNCTION	MULHOLLAND, R.	80633001	NEW	79/06/28	$25,280
OKLAHOMA STATE UNIV. STILLWATER	CHARACTERIZATION AND TREATMENT OF AQUEOUS WASTES FROM PETROLEUM REFINERY FLUID CATALYTIC CRACKING	BURKS, S.	80679801	NEW	79/08/02	$70,736
OKLAHOMA, UNIV. OF NORMAN	DEVELOPMENT OF CRITERIA FOR FRESH RECREATIONAL WATERS	ROBERTSON, J.	80671201	NEW	79/06/25	$40,000
OKLAHOMA, UNIV. OF NORMAN	CONSORTIUM FOR GROUNDWATER QUALITY RES	CANTER, L.	80693101	NEW	79/08/01	$333,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	OKLAHOMA					
** DEMONSTRATION **						
NORMAN, CITY OF NORMAN	COOPERATIVE AGREEMENT TYPE B BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND EPA	CROSBY, JAMES	80692201	NEW	79/08/28	$12,000
OKLAHOMA CONSERVATION COMM. OKLAHOMA CITY	PAUL'S VALLEY LAKE RESTORATION	GRIMMETT, JACK	80489601	INCR	79/08/13	$21,300
** TRAINING **						
NATIONAL RURAL WATER ASSOC. DUNCAN	STATE RURAL WATER TRAINING AND TECHNICAL ASSISTANCE PROGRAMS	MONTGOMERY, J.	90082601	INCR	79/05/25	$426,774
			90082601	INCR	79/09/26	$1,000,000
OKLAHOMA STATE UNIV. STILLWATER	PROFESSINAL TRAINING IN WATER POLLUTION AND WATER SUPPLY	KINCANNON, DON	90084501	INCR	79/08/15	$6,817
** FELLOWSHIPS **						
PARROTT, C. STILLWATER	WILDLIFE MANAGEMENT	OKLAHOMA STATE UNIV.	91135201	NEW	79/07/23	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	OREGON					
** RESEARCH **						
OREGON GRAD. CTR. FOR STUDY BEAVERTON	AEROSOL CARBON TRENDS ACROSS THE UNITED STATES	HUNTZICKER, J.	80627402	CONT	79/07/17	$50,000
			80627402	INCR	79/08/31	$11,200
OREGON GRAD. CTR. FOR STUDY & RES. BEAVERTON	THE CONTINUOUS MONITORING OF PARTICULATE SULFUR COMPOUNDS BY FLAME PHOTOMETRY	HUNTZICKER, JAMES J.	80475002	INCR	79/08/02	$7,000
OREGON STATE UNIV. CORVALLIS	ENVIRONMENTAL CONTAMINANTS: EFFECTS ON TUMOR GROWTH AND IMMUNITY	KERKVLIET, N.	80521003	CONT	79/07/23	$80,486
OREGON STATE UNIV. CORVALLIS	EFFECTS OF CHROMIUM AND NUTRIENT POLLUTANTS ON NATURAL PHYTOPLANKTON POPULATIONS	SMALL, L.	80528201	INCR	79/09/04	$4,468
OREGON STATE UNIV. CORVALLIS	EFFECT OF ENVIRONMENTAL POLLUTANTS ON THE SUSCEPTIBILITY OF SALMONID FISH TO VIRAL AND BACTERIAL PAT	HETRICK, F.	80540702	INCR	79/09/07	$38,061
OREGON STATE UNIV. CORVALLIS	AVAILABILITY OF CADMIUM TO RATS FROM CROPS GROWN ON CADMIUM ENRICHED SOIL	BUHLER, DONALD	80577402	CONT	79/06/28	$91,409
OREGON STATE UNIV. CORVALLIS	LABORATORY INVESTIGATIONS OF DIFFUSION AND FUMIGATION INTO THE MIXED LAYER	DEARDORFF, J.	80591202	CONT	79/07/23	$38,773
OREGON STATE UNIV. CORVALLIS	EFFECTS OF SEDIMENT-TROPHIC INTERACTIONS ON STREAM COMMUNITIES	ANDERSON, N. H.	80608702	CONT	79/07/23	$44,887
OREGON STATE UNIV. CORVALLIS	THE UTILIZATION OF INDIGENOUS POPULATIONS OF BIVALVE MOLLUSKS FOR MONITORING, SURVEILLANCE	MIX, MICHAEL	80622402	CONT	79/08/06	$55,330

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O R E G O N						
** RESEARCH **						
OREGON STATE UNIV. CORVALLIS	INTERFERENCE FROM TURBID FINISHED DRINKING WATER AND HIGH STANDARD PLATE COUNTS	SEIDLER, R.	80628702	CONT	79/08/31	$62,411
OREGON STATE UNIV. CORVALLIS	ASSESSMENT OF THE IMPACT OF INCREASE SOLAR ULTRAVIOLET RADIATION UPON MARINE PRIMARY PRODUCERS	WORREST, R.	80649001	NEW	79/04/24	$50,153
OREGON STATE UNIV. CORVALLIS	RELATIONSHIPS BETWEEN NUTRIENT FLUXES AND BENTHIC PLANT PROCESSES IN NETARTS BAY, OREGON	MCINTIRE, DAVID	80678001	NEW	79/07/17	$87,253
OREGON STATE UNIV. CORVALLIS	RAINBOW TROUT: A MODEL FOR ENVIRONMENTAL CARCINOGENESIS	HENDRICKS, J.	80701601	NEW	79/07/23	$57,000
OREGON STATE UNIV. CORVALLIS	STATISTICAL SERVICES FOR ENVIRONMENTAL MEASUREMENTS	ROWE, KENNETH	80724101	NEW	79/09/26	$29,100
OREGON, UNIV. OF PORTLAND	EFFICACY OF WATER TREATMENT METHODS ON GIARDIA CYST VIABILITY	MEYER, E.	80603202	CONT	79/08/06	$54,435
OREGON, UNIV. OF HLTH SCI CTR PORTLAND	EFFICACY OF WATER TREATMENT METHODS ON GIARDIA CYST VIABILITY	MEYER, E.	80603201	INCR	79/05/25	$800
PORTLAND STATE UNIV. PORTLAND	AN INVESTIGATION OF THE REACTIONS OF AROMATIC HYDROCARBONS ON PHOTO CHEMICAL AIR POLLUTION	O BRIEN, R.	80476403	INCR	79/08/31	$15,000
** DEMONSTRATION **						
OREGON DEPT OF ENVRN QUALITY PORTLAND	A COOPERATIVE AGREEMENT (TYPE F) BETWEEN THE DEPT OF ENVIRONMENTAL QUALITY AND U.S.E.P.A.	HECTOR, JOHN	80683601	NEW	79/08/28	$28,414
OREGON DEPT OF ENVRN QUALITY PORTLAND	DEVELOPMENT OF MOTOR VEHICLE NOISE INSPECTION PROGRAM	HECTOR,JOHN	80683801	NEW	79/08/28	$34,000

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	OREGON					
** DEMONSTRATION **						
PORTLAND, CITY OF PORTLAND	NEIGHBORHOOD ORGANIZATION-A COOPERATIVE AGREEMENT (TYPE D) BETWEEN THE CITY OF PORTLAND U.S.E.P.A.	HERMAN, P.	80696701	NEW	79/08/28	$11,414
** TRAINING **						
LINN-BENTON COMMUN. COLLEGE ALBANY	SLIDGE TREATMENT AND DISPOSAL TRAINING	KLOPPING, P.	90095301	NEW	79/07/17	$71,849
OREGON EDUC. & PUBLIC BROADCASTING SER PORTLAND	PRODUCTION & DISTRIBUTION OF A TELEVISION PUBLIC BROADCASTING SPECIAL ON THE REUSE, RECYCLING	BRYANT, D.	90091801	INCR	79/08/02	$67,603
OREGON STATE UNIV. CORVALLIS	PROFESSIONAL TRAINING IN WATER POLLUTION CONTROL AND WATER SUPPLY "FUNDS WILL PROVIDE TRAINING"	SCHRODER, W.	90085701	INCR	79/08/28	$7,951
PACIFIC NW LABOR COLLEGE INC MARYLHURST	ENVIRONMENTAL ACTION PROJECT	ECKERT, ROY	90104901	NEW	79/09/07	$40,000

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** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
ALLEGHENY COLLEGE MEADVILLE	THE EFFECT OF COLLISIONAL LIFETIME IN OPTO-ACOUSTIC DETECTION OF POLLUTANT GASES	CHRISTIAN, W.	80643901	INCR	79/08/15	$200
AMERICAN SOCIETY FOR TESTING&MATERIALS PHILADELPHIA	CONFERENCE ON INTERNATIONAL AIR QUALITY MEASUREMENTS	MATTHEWS, C.	80669701	NEW	79/07/05	$5,000
DREXEL UNIV. PHILADELPHIA	MICROWAVE SYSTEM FOR LOCATING FAULTS IN HAZARDOUS MATERIAL DIKES	KOERNER, R.	80476302	CONT	79/09/25	$126,708
DREXEL UNIV. PHILADELPHIA	SAMPLING FREQUENCY MICROBIOLOGICAL DRINKING WATER REGULATIONS	PIPES, WESLEY O.	80563702	CONT	79/09/19	$93,000
ENVIRONMENTAL RES MGMT., INC. WEST CHESTER	COOPERATIVE AGREEMENT FOR TECHNICAL SUPPORT SERVICES FOR THE ENVIRONMENTAL REVIEW DIVISION	KLOSE, P.	80718901	NEW	79/09/05	$111,106
FRANKLIN INST. PHILADELPHIA	STUDY OF THE NOVEL REACTION OF MOLTEN SODIUM AND SOLVENT WITH PCB	PYTLEWSKI, L.	80664901	NEW	79/06/25	$81,714
FRANKLIN INST. PHILADELPHIA	LITERATURE STUDY OF BIODEGRADABILITY OF CHEMICAL SUBSTANCES IN WATER	CRAIG, P.	80669901	NEW	79/06/26	$87,040
GANNON COLLEGE ERIE	AN EPIDEMIOLOGICAL STUDY OF PRESQUE ISLE STATE PARK BEACHES ON LAKE ERIE, ERIE, PA.	ZAGORSKI, S.	80679101	NEW	79/06/28	$55,940
PENNSYLVANIA STATE UNIV. UNIVERSITY PARK	SIMPLIFIED SAMPLING SYSTEM	HEINSHON, R.	80573802	CONT	79/06/20	$40,000
PENNSYLVANIA STATE UNIV. UNIVERSITY PARK	BOUNDARY-LAYER MODEL IMPROVEMENT AND VALIDATION	BLACKADAR, A.	80604801	INCR	79/07/17	$20,532

APPLICANT & MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	PENNSYLVANIA					
** RESEARCH **						
PENNSYLVANIA STATE UNIV. UNIVERSITY PARK	RESTORATION OF FAILING ON-LOT-SEWAGE DISPOSAL AREAS THROUGH WATER CONSERVATION AND RESTING	FRITTON, D.	80711501	NEW	79/08/21	$195,000
PENNSYLVANIA, UNIV. OF PHILADELPHIA	CASE CONTROL STUDY OF WATER QUALITY & CARCINOGENISES IN PA.	BAHN, A.	80459401	INCR	79/07/25	$161,374
PENNSYLVANIA, UNIV. OF PHILADELPHIA	RESEARCH AND DEVELOPMENT OF A HEALTH EFFECTS AND ENVIRONMENTAL DATA ANALYSIS SYSTEM	LEFKOVITZ, D.	80687101	NEW	79/09/25	$183,895
PHILADELPHIA WATER DEPT PHILADELPHIA	REMOVAL OF TRACE ORGANIC COMPOUNDS BY BIOLOGICALLY ACTIVATED CARBON	CAIRO, PATRICK	80625602	CONT	79/08/02	$500,000
PITTSBURGH, UNIV. OF PITTSBURGH	RAPID TESTING IN VIVO OF CHEMICALS FOR CARCINOGENICITY	LOMBARDI, B.	80664401	NEW	79/06/21	$417,842
PITTSBURGH, UNIV. OF PITTSBURGH	IMPROVED BIOLOGICAL WASTEWATER TREATMENT FOR AMMONIA REDUCTION STEEL INDUSTRY WASTEWATERS	NEUFELD, R.	80672401	NEW	79/08/31	$15,900
PITTSBURGH, UNIV. OF PITTSBURGH	COOPERATIVE AGREEMENT FOR EPIDEMIOLOGY RESEARCH CENTER	RADFORD, E.	80681501	NEW	79/08/01	$346,000
SUSQUEHANNA UNIV. SELINSGROVE	RECOVERY STUDIES OF PESTICIDES FROM SURFACE AND DRINKING WATERS	MCGRATH, T.	80604902	CONT	79/06/28	$30,910
TEMPLE UNIV. PHILADELPHIA	EFFECTS OF LEAD & ORGANO-TIN COMPOUNDS ON ENERGY METABOLISM & ION TRANSPORT	VAN ROSSUM, G	80661601	NEW	79/08/06	$70,269
THOMAS JEFFERSON UNIV. PHILADELPHIA	EFFECT OF INSECTICIDES ON BENZO(A) PYRENE CARCINOGENESIS	TRIOLO, A.	80581902	CONT	79/08/22	$54,866

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PENNSYLVANIA

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
** RESEARCH **						
THOMAS JEFFERSON UNIV. PHILADELPHIA	MUTAGENIC POTENTIAL OF URBAN WATER AND AIR SAMPLES	WITMER, C.	80627902	CONT	79/08/31	$111,503
** DEMONSTRATION **						
DELAWARE VALLEY REG PLNG COMM PHILADELPHIA	PHILADELPHIA INTERNATIONAL AIRPORT NOISE STUDY	JOHNSON, W.	80691701	NEW	79/08/16	$130,000
GENERAL BATTERY CORP. READING	HYDROPERM MICROFILTRATION SYSTEM FOR TREATMENT OF WASTEWATER EFFLUENT	BARANSKI, J.	80574801	INCR	79/07/16	$32,035
YORK, CITY OF YORK	EPA-1: TO CONDUCT A DEMONSTRATION PROJECT OF NOISE PROBLEMS AND LEVELS IN THE CITY OF YORK.	MURPHY,DONALD	80694401	NEW	79/08/28	$9,279
** TRAINING **						
PENNSYLVANIA ENVRN RES. FDN. PHILADELPHIA	IMPACT OF ENVIRONMENT REGULATIONS ON OLDER INDUSTRIALIZED AREAS	BECKER, RUTH	90093901	NEW	79/05/31	$5,000
PENNSYLVANIA STATE UNIV. UNIVERSITY PARK	CURRICULUM DEVELOPMENT OF A BACHELOR OF ENGINEERING TECHNOLOGY IN WATER QUALITY MANAGEMENT	COLE, C.	90070401	INCR	79/07/16	$6,000
PENNSYLVANIA STATE UNIV. UNIVERSITY PARK	201/208 ADVISORY GROUP TRAINING PROGRAM	COLE, CHARLES	90098001	NEW	79/06/25	$243,703
PHILADELPHIA PUBLIC INTEREST LAW CTR. PHILADELPHIA	ENVIRONMENTAL CANCER PREVENTION CENTER DEMONSTRATION PROJECT.	SLAP, ALBERT	90088801	INCR	79/06/28	$145,576
** FELLOWSHIPS **						
ANDRESEN, A. PHILADELPHIA	FOREST MANAGEMENT	PENNSYLVANIA, UNIV. OF	91118001	INCR	79/07/17	$300

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	P E N N S Y L V A N I A					
** FELLOWSHIPS **						
CHIAVETIA, RICHARD PITTSBURGH	BIOLOGY	PITTSBURGH, UNIV. OF	91143701	NEW	79/09/07	$852
ENGLISH, DAVID VILLANOVA	ENVIRONMENTAL RESOURCE MANAGEMENT	VILLANOVA UNIV.	91143601	NEW	79/08/31	$850
GAGLIERO, ANTHONY PITTSBURGH	CHEMISTRY & BEHAVIORAL SCI	PITTSBURGH, UNIV. OF	91143501	NEW	79/08/01	$3,678
GRINDER, JOHN PITTSBURGH	ENVIRONMENTAL SCIENCE	PITTSBURGH, UNIV. OF	91143601	NEW	79/09/04	$852
HUMPHREY, GARY PITTSBURGH	BIOLOGY	PITTSBURGH, UNIV. OF	91143301	NEW	79/07/19	$812
			91143301	INCR	79/09/11	$600
LEVY, R. PHILADELPHIA	AIR POLLUTION FELLOWSHIP	PENNSYLVANIA, UNIV. OF	91118101	INCR	79/09/18	$220
MCCLURE, G. PHILADELPHIA	ENVIRONMENTAL SCIENCE	DREXEL UNIV.	91130301	INCR	79/07/23	$710
			91130301	INCR	79/09/07	$433
MILLER, MANUEL R. PITTSBURG	CHEMISTRY	PITTSBURGH, UNIV. OF	91131001	INCR	79/07/10	$580

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	PENNSYLVANIA					
** FELLOWSHIPS **						
PETERSON, D. PITTSBURGH	CIVIL ENGINEERING	PITTSBURGH, UNIV. OF	91143101	NEW	79/06/28	$852
PRINDLE, D. PHILADELPHIA	REGIONAL PLANNING	PENNSYLVANIA, UNIV. OF	91122201	INCR	79/07/17	$690
SHAH, K. PITTSBURGH	SANITARY ENGINEERING	PITTSBURGH, UNIV. OF	91130201	INCR	79/08/01	$923
SHAMIIKU, G. PITTSBURGH	MS/CIVIL ENGINEERING	PITTSBURGH, UNIV. OF	91128701	INCR	79/07/23	$1,133
SHERTZER, RICHARD MIDDLETOWN	BIOLOGY	PENNSYLVANIA STATE	91143201	NEW	79/07/16	$612
UPADHYAY, J. PHILADELPHIA	ENGINEERING & SCIENCE	DREXEL UNIV.	91122001	INCR	79/07/19	$2,667
VARNER, J UNIVERSITY PARK	CIVIL ENGINEERING	PENNSYLVANIA STATE	91128801	INCR	79/07/10	$720
VINCENT, LUCI V. PITTSBURGH	SANITARY ENGINEERING	PITTSBURGH, UNIV. OF	91130101	INCR	79/07/11	$710
WEISMAN, KEITH PITTSBURGH	ENVIRONMENTAL ENGINEERING	PITTSBURGH, UNIV. OF	91143401	NEW	79/07/30	$781
			91143401	INCR	79/09/19	$91

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

R H O D E   I S L A N D

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
RHODE ISLAND, UNIV. OF KINGSTON	PHAGE RESISTANCE MEANS SEPARATING HUMAN & ANIMAL E. COLI STRAINS & DEFINING COLONIZATION POTENTIALS	COHEN, P.	80548801	INCR	79/07/17	$25,000
RHODE ISLAND, UNIV. OF KINGSTON	MARINE ECOSYSTEMS RESEARCH LABORATORY (MERL)	PILSON, M.	80607202	CONT	79/07/17	$750,000
			80607202	INCR	79/09/26	$30,000
RHODE ISLAND, UNIV. OF KINGSTON	EFFECT OF DIET ON LAB. RAISE LARVAL WINTER FLOUNDER FOR TOXICOLOGICAL STUDIES	SIMPSON, K.	80673501	NEW	79/07/02	$36,600
RHODE ISLAND, UNIV. OF KINGSTON	DESIGN, MANAGEMENT, AND ANALYSIS OF EXPERIMENTAL DATA	HELTHSHE, J.	80703101	NEW	79/09/26	$33,927

** FELLOWSHIPS **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
PERDIKAKIS, C. KINGSTON	CIVIL & ENVIRONMENTAL ENGINEERING	RHODE ISLAND, UNIV. OF	91146101	NEW	79/08/20	$2,256

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	S O U T H C A R O L I N A					
** RESEARCH **						
CHARLESTON, COLLEGE OF CHARLESTON	RIVULUS MARMATUS POTENTIAL AS A CANCER RESEARCH AND CHMEICAL CARCINIGEN SCREENING ORGANISM	KOENIG, C.	80546901	INCR	79/07/05	$50,000
CLAFLIN COLLEGE ORANGEBURG	COMPARATIVE EVALUATION AND SELECTION OF A DIGESTION METHOD FOR TOTAL ARSENIC DETERMINATION BY ATOMIC	SANDHU, S. S.	80642601	NEW	79/09/04	$37,796
CLEMSON UNIV. CLEMSON	PIEDMONT AQUATIC ECOSYSTEM RESPONSE TO N.P.S. POLLUTANT REDUCTION	DYSART, B., III	80631602	CONT	79/08/07	$120,000
CLEMSON UNIV. CLEMSON	TECHNOLOGY EVALUATION FOR PRIORITY POLLUTANT REMOVAL FROM DYESTUFF MANUFACTURE WASTEWATERS	KEINATH, T.	80714501	NEW	79/08/27	$70,000
SOUTH CAROLINA, UNIV. OF COLUMBIA	SOUTH CAROLINA EPIDEMIOLOGIC STUDIES PROJECT. DEVELOP SCIENTIFIC DATA ON THE MAGNITUDE & EFFECTS	SANDIFER, S.	80687601	INCR	79/09/26	$58,101
SOUTH CAROLINA, UNIV. OF COLUMBIA	DEVELOPMENT OF COLLECTION METHODS FOR AIRBORNE POLYCHLORINATED BIPHENYLS USING SOLID ADSORBENTS	BIDLEMAN, T.	80704801	NEW	79/08/31	$43,000
SOUTH CAROLINA, UNIV. OF (MED) CHARLESTON	EPIDEMIOLOGIC STUDIES PROGRAM	SANDIFER, S.	80687601	NEW	79/04/18	$500,000
** TRAINING **						
CLEMSON UNIV. CLEMSON	GRADUATE TRAINING IN WATER POLLUTION CONTROL AND WATER SUPPLY	RICH, L.	90082401	INCR	79/09/05	$11,463
CLEMSON UNIV. CLEMSON	TECHNICAL REVIEW & EDIT OF TRI-SERVICES MANUAL	ALLEN, JOE F.	90094901	NEW	79/04/18	$25,000
SOUTHERN EDUC COMM ASSOC COLUMBIA	CHEMICALS IN THE ENVRN.	WALL, M.	90076701	INCR	79/07/11	$48,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	S O U T H C A R O L I N A					
** TRAINING **						
SOUTHERN EDUC COMM ASSOC COLUMBIA	PUBLIC TELEVISION PROJECT ON HAZARDOUS WASTES	HALL, M.	90105501	NEW	79/09/05	$23,872
** FELLOWSHIPS **						
COLEMAN, FOSTER COLUMBIA	AGRICULTURAL ENGINEERING	SOUTH CAROLINA, UNIV.	91140601	INCR	79/08/10	$6,000
			91140601	NEW	79/06/29	$1,418
MCENTIRE, CECIL COLUMBIA	CIVIL ENGINEERING	SOUTH CAROLINA, UNIV.	91140801	NEW	79/06/29	$418
			91140801	INCR	79/08/06	$120
SENTELLE, ROBERT CLEMSON	CIVIL ENGINEERING	CLEMSON UNIV.	91140501	NEW	79/07/16	$6,000
WILLIAMS, ANTHONY COLUMBIA	BIOLOGY/CHEMISTRY	SOUTH CAROLINA, UNIV.	91140701	NEW	79/06/28	$1,418

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	SOUTH DAKOTA					
** RESEARCH **						
SOUTH DAKOTA SCHOOL OF MINES & TECH RAPID CITY	APPLICATION OF COMPOUND ANALYSES BY X-RAY DIFFRACTION TO AEROSOL PROVENANCE STUDIES	DAVIS, BRIANT	80676901	NEW	79/07/31	88,993

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	TENNESSEE					
** RESEARCH **						
TENNESSEE TECH UNIV. COOKEVILLE	SEPARATION OF ASBESTOS IN ENVIRONMENTAL SAMPLES BY ZONAL CENTRIFUGATION	BONNER, W.	80625502	CONT	79/08/06	$45,000
TENNESSEE, UNIV. OF KNOXVILLE	PERSISTENCE AND TOXIC PERTURBATION EFFECTS IN MODEL ECOSYSTEMS	HALLAM T.	80672601	NEW	79/07/13	$47,124
VANDERBILT UNIV. NASHVILLE	NATIONAL CONFERENCE ON CONTROL OF HAZARDOUS MATERIAL SPILLS	HARDISON, R.	80667101	NEW	79/07/05	$41,049
** DEMONSTRATION **						
KINGSPORT, CITY OF KINGSPORT	COMMUNITY VEHICULAR NOISE ABATEMENT PROGRAM	CAMPBELL, ROGER	80678201	NEW	79/08/28	$9,500
** TRAINING **						
TENNESSEE ENVIRONMENTAL COUNCIL NASHVILLE	REGIONAL TOXIC PUBLIC PARTICIPATION PROGRAM IN TENNESSEE	NEFF, RUTH	90103501	NEW	79/09/07	$40,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

TEXAS

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
BAYLOR COLLEGE OF MEDICINE HOUSTON	MOVEMENT AND FATE OF VIRUSES AND ORGANIC POLLUTANTS IN GROUND WATER DURING THE LAND TREATMENT OF WASTE	GERBA, C.	80529203	CONT	79/08/01	$170,000
HOUSTON, UNIV. OF HOUSTON	DEVELOPMENT OF NEW SAMPLING TECH. FOR ANALYSIS OF POLAR & SEMIPOLAR AIR POLL. AT THE PPT LEVEL	ZLATKIS, A.	80602201	INCR	79/07/23	$23,971
NORTH TEXAS STATE UNIV. DENTON	IDENT. OF NON VOLATILE CHLORINATED ORGANIC COMPOUNDS FORMED DURING WATER CHLORINATION	GLAZE, W	80582201	INCR	79/06/25	$52,793
SOUTHWEST RES. INST. SAN ANTONIO	ENVIRONMENTAL MONITORING OF SITES CONDUCTING LAND APPLICATION OF LIQUID SLUDGE	JOHNSON, D.	80590901	INCR	79/04/02	$110,911
SOUTHWEST RES. INST. SAN ANTONIO	CASE STUDIES OF LINED IMPOUNDMENTS	SHULTZ, DAVID	80664501	NEW	79/05/31	$92,764
SOUTHWEST RESEARCH INST. SAN ANTONIO	THE 1980 EPA HAZARDOUS WASTE MANAGEMENT SYMPOSIUM	SHULTZ, D. W.	80712101	NEW	79/08/23	$40,842
TEXAS A&M RES. FDN. COLLEGE STATION	DEVELOPMENT OF COMPREHENSIVE, UNIFIED, ECONOMICALLY AND ENVIRONMENTALLY SOUND SYS	ADKINSON, P.	80627702	CONT	79/09/05	$3,000,000
TEXAS A&M RES. FDN. COLLEGE STATION	DEVELOPMENT OF STRATEGIES OPTIMIZING NON-CHEMICAL APPROACHES TO MANAGING MOSQUITO POPULATIONS IN FRE	OLSON, J. K.	80677101	NEW	79/09/12	$400,000
TEXAS A&M RES. FDN. COLLEGE STATION	EFFECTS OF OFFSHORE OIL AND GAS DRILLING AND PRODUCTION ON REEF BUILDING CORALS	BRIGHT, T.	80679301	NEW	79/06/26	$72,934
TEXAS A&M RES. FDN. COLLEGE STATION	A REVIEW AND EVALUATION OF THE INFLUENCE OF CHEMICALS ON THE PERMEABILITY OF SOIL CLAYS	BROWN, KIRK	80682501	NEW	79/07/26	$50,000

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TEXAS

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
TEXAS PEST MANAGEMENT ASSOC. LUBBOCK	DEVELOPMENT OF A MODEL PROGRAM FOR THE LARGE SCALE STATE-WIDE IMPLEMENTATION OF INTEGRATED PEST MGT.	ANDERSON, L.	80632101	NEW	79/07/19	$50,000
TEXAS TECH UNIV. SCH OF MED LUBBOCK	TEXAS EPIDEMIOLOGICAL STUDIES PROGRAM	NAU, CARL A.	80690401	NEW	79/07/10	$552,400
TEXAS, UNIV. OF AUSTIN	AEROSOL DYNAMICS	BROCK, J.	80566005	INCR	79/09/04	$90,000
TEXAS, UNIV. OF AUSTIN	REACTIONS OF SULFUR DIOXIDE IN AEROSOLS	HIMMELBLAU, D.	80381403	INCR	79/04/27	$4,200
			80381403	INCR	79/07/23	$10,000
TEXAS, UNIV. OF SAN ANTONIO	ALTERNATE WATER DISINFECTION SCHEMES FOR REDUCED TRIHALOMETHANE FORMATION	SORBER, C.	80604601	INCR	79/04/16	$89,992
TEXAS, UNIV. OF GALVESTON	COMBINED TESTING PROTOCOL FOR DETECTING ENVIRONMENTAL MUTAGENIC AGENTS	LEGATOR, M.	80619401	INCR	79/08/15	$1,800
TEXAS, UNIV. OF HOUSTON	LITHIUM: EPIDEMIOLOGICAL ASSESSMENT OF CHRONIC EXPOSURE	FERRELL, R.	80621901	NEW	79/04/16	$25,369
TEXAS, UNIV. OF RICHARDSON	REMOVAL OF SELECTED PRIORITY POLLUTANT ORGANIC COMPOUNDS FROM WATER BY ACTIVATED CARBON COLUMN TREAT	PIRONI, M. D.	80654101	NEW	79/07/05	$39,770
TEXAS, UNIV. OF AUSTIN	BUFFER ADDITIVES FOR STACK GAS DESULFURIZATION BY CAO/CACO3 SLURRY	RACHELLE, GARY	80674301	NEW	79/07/05	$44,006

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	T E X A S					
** RESEARCH **						
TEXAS, UNIV. OF RICHARDSON	COMBINED MUNICIPAL-INDUSTRIAL WASTE TREATMENT CONFERENCE	NETZER, A.	80679901	NEW	79/08/30	$27,148
TEXAS, UNIV. OF (HLTH SCI CTR) HOUSTON	HEALTH EFFECTS OF AIR POLLUTION IN TEXAS GULF COAST AREA	BUFFLER, P.	80710801	NEW	79/09/19	$798,648
** TRAINING **						
CITIZENS ENVRN COALITION EDUC FUND INC HOUSTON	REGIONAL TOXIC PUBLIC PARTICIPATION PROGRAM IN TEXAS	MACCORMAC, L. K.	90103201	NEW	79/09/18	$28,500
LEAGUE OF WOMEN VOTERS OF HOUSTON HOUSTON	REGIONAL TOXIC PUBLIC PARTICIPATION PROGRAM IN THE UPPER GULFCOAST AREA	SMITH, FRANCES	90102801	NEW	79/09/05	$11,500
NORTH TEXAS STATE UNIV. DENTON	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	SILVEY, J.	90089301	INCR	79/09/07	$8,977
RICE UNIV. HOUSTON	TRAINING IN WATER POLLUTION CONTROL	WARD, C. H.	90096601	NEW	79/05/31	$200,000
SOUTHWEST RES. INST. SAN ANTONIO	STATE TRAINING CENTER FACILITY ASSESSMENT, PROGRAM EVALUATION, AND GUIDE DEVELOPMENT	MIKLAS, MICHAEL	90101601	NEW	79/07/09	$50,000
TEXAS A&M UNIV. COLLEGE STATION	DEVELOPMENT AND IMPLEMENTATION OF TRAINING PROGRAM ON OPERATIONAL CONSIDERATIONS IN CONSTRUCTION	HOLBERT, L.	90105101	NEW	79/09/19	$117,390
TEXAS, UNIV. OF AUSTIN	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION	NEAL E ARMSTRONG PH.D	90089702	INCR	79/08/20	$10,860
TEXAS, UNIV. OF RICHARDSON	REGIONAL NOISE TECHNICAL ASSISTANCE CENTER, REGION VI	PUTNICKI, G.	90099601	NEW	79/08/28	$29,100

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
		T E X A S				
** TRAINING **						
TEXAS, UNIV. OF (AUSTIN) AUSTIN	GRADUATE TRAINING IN AIR POLLUTION	COOPER, HAL	90068003	CONT	79/08/02	$59,894
** FELLOWSHIPS **						
GRIMSHAW, C. THOMAS EL PASO	CIVIL ENGINEERING	TEXAS, UNIV. OF	91136901	NEW	79/07/17	$3,370
SLOVAK, TRENT HOUSTON	ENVIRONMENTAL SCIENCE	HOUSTON, UNIV. OF	91138701	NEW	79/08/10	$1,846

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APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
** RESEARCH **						
UTAH STATE DIVISION OF HEALTH SALT LAKE CITY	EFFECTS OF EXPOSURE TO HIGH LEVELS OF ARSENIC IN DRINKING WATER	SOUTHWICK, J.	80461701	INCR	79/04/10	$27,039
UTAH STATE UNIV. LOGAN	MONITORING INSECT POPULATION IN UTAH ALFALFA FIELDS TO MODIFY CONTROL PRACTICES	DAVIS, DONALD	80531903	CONT	79/08/28	$26,800
UTAH, UNIV. OF SALT LAKE CITY	POLLUTANT FORMATION DURING FIXED BED AND SUSPENSION COAL COMBUSTION	PERSHING, D.	80589902	CONT	79/06/29	$94,735
** DEMONSTRATION **						
UTAH STATE DIVISION OF HEALTH SALT LAKE CITY	A COOPERATIVE AGREEMENT (TYPE B) BETWEEN THE STATE OF UTAH AND U.S. EPA	ANDER, L.	80692001	NEW	79/08/28	$25,000
** TRAINING **						
UTAH STATE UNIV. LOGAN	GRADUATE TRAINING IN RURAL AND AGRICULTURE WATER QUALITY MANAGEMENT	JONES, N.	90086101	INCR	79/09/05	$6,025
** FELLOWSHIPS **						
BLAKE, D. SALT LAKE CITY	CIVIL ENGR	UTAH, UNIV. OF	91135101	INCR	79/07/17	$1,500
BOUSFIELD, K. SALT LAKE CITY	CIVIL ENGINEERING	UTAH, UNIV. OF	91132301	INCR	79/07/05	$1,500
DENTON, K. SALT LAKE CITY	BIOLOGY	UTAH, UNIV. OF	91130901	INCR	79/07/31	$943
ENGLISH, T. SALT LAKE CITY	BIOLOGY	UTAH, UNIV. OF	91145801	NEW	79/08/10	$943

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	U T A H					
** FELLOWSHIPS **						
GUNNELL, ROY SALT LAKE CITY	BIOLOGY	UTAH, UNIV. OF	91128001	INCR	79/08/13	$642
PATEL, C. SALT LAKE CITY	SANITARY ENGINEERING	UTAH, UNIV. OF	91125001	INCR	79/07/23	$642
SCANLAN, L. SALT LAKE CITY	CHEMISTRY	UTAH, UNIV. OF	91131801	INCR	79/07/05	$1,500

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V I R G I N I A

** RESEARCH **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
AMERICAN INSTITUTE OF BIOLOGICAL SCI ARLINGTON	STUDY PANEL ON HUMAN SAFETY OF UNCONVENTIONAL PESTICIDES	HEEM, D.	80646101	NEW	79/05/15	$40,000
ESTUARINE RES. FDN. WACHAPREAGUE	FIFTH BIENNIAL INTERNATIONAL ESTUARINE RESEARCH CONFERENCE	BRIGGS,ROBERT	80675301	NEW	79/08/01	$20,000
VIRGINIA INST. OF MARINE SCIENCE GLOUCESTER PT.	ZOSTERA MARINA: BIOLOGY, PROPAGATION AND EFFECTS OF HERBICIDES	ORTH, R.	80595301	INCR	79/06/26	$2,755
VIRGINIA INST. OF MARINE SCIENCE GLOUCESTER PT.	FUNCTIONAL ECOLOGY OF SUBMERGED AQUATIC VEGETATION IN THE LOWER CHESAPEAKE BAY	WETZEL, R.	80597401	INCR	79/09/05	$19,532
VIRGINIA INST. OF MARINE SCIENCE GLOUCESTER PT.	FATE, TRANSPORT AND TRANSFORMATION OF TOXICS: SIGNIFICANCE OF SUSPENDED SEDIMENT AND FLUID MUD	NICHOLS, M.	80600202	CONT	79/09/06	$151,811
VIRGINIA POLY INST & STATE UNIV. BLACKSBURG	BIOLOGICAL CONTROL OF MUSK AND PLUMELESS THISTLE IN PASTURES	KOK, L. T.	80593102	CONT	79/08/15	$64,856
VIRGINIA POLY INST & STATE UNIV. BLACKSBURG	ANALYSIS OF HTE COSTS AND BENEFITS OF THE USE OF PESTICIDES ON CROP AND NON-CROP SITES IN VIRGINIA	BAUM, K. M.	80710701	NEW	79/08/28	$287,998
WILLIAM & MARY COLLEGE WILLIAMSBURG	SEDIMENT & PORE WATER CHEMISTRY (CHESAPEAKE BAY PROGRAM)	TYREE, S.	80596601	INCR	79/05/25	$1,674

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
IZAAK WALTON LEAGUE OF AMERICA, INC ARLINGTON	CITIZEN TRAINING -- SOLID WASTE MANAGEMENT	AXELARAD,R.	90095201	NEW	79/06/25	$85,600
IZAAK WALTON LEAGUE OF AMERICA, INC. ARLINGTON	PRODUCTION OF CITIZEN'S GUIDE TO THE FEDERAL WATER POLLUTION CONTROL ACT	SHARPE, M.	90090901	INCR	79/06/28	$3,500

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	VIRGINIA					
** TRAINING **						
VIRGINIA POLYTECHNIC INST. BLACKSBURG	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	RANDALL, C.	90085301	INCR	79/09/04	$7,154
** FELLOWSHIPS **						
CAMDEN, MICHAEL L. BLACKSBURG	CIVIL ENGINEERING	VIRGINIA POLY INST.	91150401	NEW	79/09/04	$6,000
VIRGINIA POLY INST BLACKSBURG	ENVRN. ENGR.	VIRGINIA POLY INST.	91144801	NEW	79/07/23	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
WASHINGTON						
** RESEARCH **						
FRED HUTCHINSON CANCER RES. SEATTLE	CANCER INCIDENCE IN RELATION TO ASBESTOS IN DRINKING WATER IN THE PUGET SOUND REGION	POLISSAR, L.	80584602	CONT	79/04/27	$102,371
SEATTLE, CITY OF, WATER DEPT. SEATTLE	SEATTLE DISTRIBUTION SYSTEM CORROSION CONTROL STUDY	KIRMEYER, G.	80668601	NEW	79/09/19	$90,000
WASHINGTON STATE DEPT. OF ECOLOGY OLYMPIA	MODEL IMPLEMENTATION PROGRAM - MONITORING	CARELLI, C.	80654001	NEW	79/04/18	$75,872
WASHINGTON STATE UNIV. PULLMAN	MEASURE OF TROPOSPHERIC AND STRATOSPHERIC TRACE GASES BY GAS CHROMATOGRAPHY	CRONN, D.	80403303	INCR	79/06/25	$61,887
WASHINGTON STATE UNIV. PULLMAN	EXPERIMENTAL DETERMINATION OF DRY DEPOSITION RATES	ROBINSON, E.	80534202	INCR	79/06/27	$60,000
WASHINGTON STATE UNIV. PULLMAN	ON-FARM IMPROVEMENTS TO REDUCE SEDIMENT AND NUTRIENTS IN IRRIGATION RETURN FLOW	KING, LARRY	80552702	CONT	79/08/31	$126,483
WASHINGTON STATE UNIV. PULLMAN	ASSESSMENT OF TURBIDITY NETWORK DATA	ROBINSON, E.	80612401	INCR	79/06/21	$22,377
WASHINGTON STATE UNIV. PULLMAN	MEASUREMENT OF THE OXIDIZING POTENTIAL OF THE TROPOSPHERE FOR SOLVENT EMISSIONS	CRONN,D	80667801	NEW	79/07/05	$73,000
WASHINGTON STATE UNIV. PULLMAN	RURAL OXIDANT STUDIES AND THE ROLE OF NOX, IN RURAL OXIDANT FORMATION	WESTBERG, HAL	80668301	NEW	79/06/28	$167,192
WASHINGTON STATE UNIV. PULLMAN	NATURAL ORGANIC EMISSIONS AND THEIR IMPACT ON AIR QUALITY	HOLDREN, M.	80705301	NEW	79/06/28	$81,081

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	W A S H I N G T O N					
** RESEARCH **						
WASHINGTON, STATE OF OLYMPIA	STUDY OF THE DISTRIBUTION AND HEALTH EFFECTS OF GIARDIA LAMBLIA IN DOMESTIC WATER SUPPLY	FROST, FLOYD	80580902	CONT	79/06/29	$85,436
WASHINGTON, STATE OF WENATCHEE	EPIDEMIOLOGIC STUDIES PROGRAM PESTICIDES	ALLARD, J.	80689101	NEW	79/05/31	$231,590
WASHINGTON, UNIV. OF SEATTLE	OPTICAL EFFECTS OF ATMOSPHERIC AEROSOL	WAGGONER, ALAN P.	80066513	INCR	79/06/22	$99,653
WASHINGTON, UNIV. OF SEATTLE	REHABILITATION EFFECTS IN LONG LAKE, WASHINGTON	WELCH, E. B.	80458801	INCR	79/06/19	$102,077
WASHINGTON, UNIV. OF SEATTLE	FIELD STUDIES OF THE OXIDATION OF SO2 IN CLOUDS	HOBBS, P.	80526301	INCR	79/06/26	$52,107
WASHINGTON, UNIV. OF SEATTLE	IDENTIFICATION & PREVALENCE OF XERSINIA ENTEROCOLITIA IN WASHINGTON STATE WATER SUPPLIES	BALDWIN, D.	80531303	CONT	79/06/25	$68,190
WASHINGTON, UNIV. OF SEATTLE	ANALYTICAL METHODS EVALUATION FOR APPLICABILITY IN LEACHATE ANALYSIS	DEWALLE, F.	80575301	INCR	79/07/17	$9,000
WASHINGTON, UNIV. OF SEATTLE	PRESENCE OF PRIORITY POLLUTANTS IN SEWAGE AND THEIR REMOVAL IN SEWAGE TREATMENT PLANTS	DEWALLE, F.	80610201	INCR	79/08/03	$75,000
WASHINGTON, UNIV. OF SEATTLE	ECOLOGICAL EFFECTS OF STORM RUNOFF IN AN URBAN STREAM	PERKINS, M.	80638702	CONT	79/09/04	$62,327
WASHINGTON, UNIV. OF SEATTLE	THE DEVELOPMENT OF CRITERIA FOR RECREATIONAL WATERS	GALE, JAMES	80684101	NEW	79/07/13	$37,060

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	W A S H I N G T O N					
** RESEARCH **						
WASHINGTON, UNIV. OF SEATTLE	EFFECT OF WASTEWATER DISINFECTION PROCEDURES ON SURVIVAL OF R-FACTOR COLIFORM BACTERIA	STALEY, J.	80712401	NEW	79/09/04	$41,379
** DEMONSTRATION **						
KENT, CITY OF KENT	LAKE FENWICK RESTORATION	WILSON, BARNEY	80604301	INCR	79/07/11	$51,296
MOSES LAKE IRRIGATION & REHABILITATION MOSES LAKE	PROPOSED PROJECT ENTAILS CONSTRUCTING A PUMPING PLANT, SIPHON AND OPEN CHANNEL TO CONVEY LOW NUTRIENT	CONNELLY, C.	80663701	NEW	79/09/25	$3,202,500
WASHINGTON STATE DEPT. OF ECOLOGY OLYMPIA	IMPLEMENT 3 YR PROG. TO DEVELOP & ACTIVATE STATEWIDE PROG. UNDER THE ECHO CONCEPT	SAUNDERS,DAVID	80699101	NEW	79/08/28	$30,000
** TRAINING **						
NORTHWEST REG FDN SPOKANE	REGION X CONSTITUENCY PROFILES	STILGER, R.	90105001	NEW	79/09/07	$17,000
WASHINGTON, UNIV. OF SEATTLE	AIR POLLUTION TRAINING PROGRAM	RUSSANO, A.	90079702	CONT	79/09/26	$61,714
WASHINGTON, UNIV. OF SEATTLE	PROFESSIONAL TRAINING IN WATER SUPPLY AND WATER POLLUTION CONTROL	FERGUSON, J.	90086201	INCR	79/09/05	$9,737
WASHINGTON, UNIV. OF SEATTLE	REGIONAL NOISE TECHNICAL ASSISTANCE CENTER	CHALUPNIK, J.	90098601	NEW	79/08/28	$30,360
** FELLOWSHIPS **						
COOK, FREEMAN, JR. PULLMAN	ENVIRONMENTAL BIOLOGY	WASHINGTON STATE UNIV.	91150701	NEW	79/08/24	$2,500

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
		WASHINGTON				
** FELLOWSHIPS **						
RICE, WENDY ANN SEATTLE	ENVIRONMENTAL ENGINEERING	WASHINGTON, UNIV. OF	91150601	NEW	79/08/27	$2,500
STRAND, C. SEATTLE	ENVIRONMENTAL HEALTH	WASHINGTON, UNIV. OF	91136001	NEW	79/07/17	$6,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	WEST VIRGINIA					
** FELLOWSHIPS **						
BRANNON, R. INSTITUTE	FELLOWSHIP SEEKING SUPPORT OF GRADUATE TRAINING	WEST VIRGINIA COLLEGE	91128901	INCR	79/08/01	$369
CASTO, S. INSTITUTE	PUBLIC ADMIN AND ENVIRONMENTAL STUDIES	WEST VIRGINIA STATE	91146901	NEW	79/07/19	$1,860
CUTRIGHT, JERRY FAIRMONT	WATER POLLUTION	FAIRMONT STATE COLLEGE	91139401	NEW	79/07/20	$1,712
WATSON, R. CHARLESTON	FOREST MGMT.	WEST VIRGINIA COLLEGE	91132201	INCR	79/08/01	$368

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	W I S C O N S I N					
** RESEARCH **						
MARQUETTE UNIV. MILWAUKEE	EVALUATION OF THE CHARACTERISTICS & TREATABILITY OF URBAN RUNOFF RESIDUALS	ZANONI, A.	80678501	NEW	79/08/31	$30,000
			80678501	INCR	79/09/26	$9,400
WISCONSIN DEPT. OF NATURAL RESOURCES MADISON	EVALUATION OF LAKE REHABILITATION PROJECT AT MIRROR AND SHADOW LAKES	WINTER, D. R.	80468701	INCR	79/09/05	$69,691
WISCONSIN, UNIV. OF SUPERIOR	ESTIMATES OF "NO EFFECT" CONCENTRATIONS OF SELECTED PESTICIDES IN FRESHWATER ORGANISMS.	CALL, DANIEL J.	80686402	CONT	79/08/07	$102,428
WISCONSIN, UNIV. OF MADISON	COAL FIRED STEAM PLANTS: HUMAN AND EVIRONMENTAL EXPOSURE TO AIR AND WATER POLLUTANTS	CHESTERS, G.	80687801	INCR	79/06/20	$550,000
			80687801	INCR	79/09/07	$26,818
** DEMONSTRATION **						
WISCONSIN STATE DEPT HEALTH & SOC SERV MADISON	DEVELOPMENT OF SYSTEMS FOR THE IDENTIFICATION, PREVENTION AND/OR CONTROL OF TOXIC AND HAZARDOUS SUBS	WOODBURY, MARY ANN	80685601	NEW	79/04/06	$202,847
** TRAINING **						
MARQUETTE UNIV. MILWAUKEE	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	KIPP, R.	90090201	INCR	79/09/07	$9,230
SMALL IS BEAUTIFUL, INC. MILWAUKEE	SMALL IS BEAUTIFUL DAYS	BRADY, M.	90102401	NEW	79/07/26	$2,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

W I S C O N S I N

** TRAINING **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
WISCONSIN FDN FOR VOC TECH & ADULT MADISON	WASTEWATER AUDIO VISUAL MATERIALS DEVELOPMENT	SORENSEN, ROBERT	90105301	NEW	79/09/04	$61,070
WISCONSIN, UNIV OF MADISON	FACILITY PLANNING WORKSHOP SERIES FP 201	QUIGLEY,J.	90082901	INCR	79/07/26	$26,000
			90082901	INCR	79/09/26	$4,000
WISCONSIN, UNIV. OF MADISON	PROFESSIONAL TRAINING OF GRADUATE STUDENTS IN WATER POLLUTION CONTROL & WATER SUPPLY	POLKOWSKI, L.	90091601	INCR	79/09/07	$7,272

** FELLOWSHIPS **

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
HANSMANN, DOUGLAS D. MADISON	CIVIL & ENVIRONMENTAL ENGINEERING	WISCONSIN, UNIV. OF	91125101	INCR	79/08/31	$4,017
LIEBENSTEIN, LEE MADISON	WATER SCIENCE	WISCONSIN, UNIV. OF	91140101	NEW	79/07/06	$1,278
PEETERS, JAYNE MADISON	MOLECULAR BIOLOGY	WISCONSIN, UNIV. OF	91135901	NEW	79/07/23	$6,000
ROESLER, CRAIG STEVENS POINT	WATER SCIENCE	WISCONSIN, UNIV. OF	91137401	NEW	79/07/16	$4,226
SCHAEFER, ROBERT MADISON	CIVIL ENGINEERING	WISCONSIN, UNIV. OF	91125201	INCR	79/07/26	$1,020

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	WYOMING					
** RESEARCH **						
WYOMING, UNIV. OF LARAMIE	METHODS DEVELOPMENT FOR ASSESSING TRADEOFFS IN ENVIRONMENTAL MANAGEMENT	CROCKER, T.	80505901	INCR	79/09/12	$51,028
WYOMING, UNIV. OF LARAMIE	THE IMPORTANCE AND FUNCTIONS OF ALLUVIAL VALLEY FLOORS	RICHARD, P.	80689903	CONT	79/04/12	$100,000
			80689903	INCR	79/07/17	$78,800
WYOMING, UNIV. OF LARAMIE	METHODS DEVELOPMENT FOR ASSESSING AOR POLLUTION CONTROL BENIFITS IN ROCKY MOUNT REGION & SAN FRAN	CROCKER, T.	80697201	NEW	79/07/23	$455,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	F O R E I G N C O U N T R I E S					
** RESEARCH **						
JERUSALEM, HEBREW UNIV OF ISRAEL	DISEASE TRANSMISSION ASSOCIATED WITH LAND APPLICATION OF WASTEWATER	SHUVAL, H.	80041601	NEW	79/09/26	$160,622

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	FOREIGN COUNTRIES AUSTRALIA					
** RESEARCH **						
GEORGE J. SHELLEY CAMMERAY	FIELD EVALUATION OF SWIRL GRIT SEPARATOR AT TAMWORTH N.S.W. AUSTRALIA	SHELLEY, G.	80674601	NEW	79/09/19	$11,212

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	FOREIGN COUNTRIES CANADA					
** RESEARCH **						
GUELPH, UNIV. OF GUELPH	IDENTIFICATION OF PCBS IN COMMERCIAL MIXTURES AND ENVIRONMENTAL SAMPLES	SAFE S. H.	80692801	NEW	79/08/06	$20,000
TORONTO, UNIV. OF TORONTO	A STUDY OF THE MECHANISM AND RATES OF VOLATILIZATION OF CONTAMINANTS FROM WATER BODIES	MACKAY, D.	80515003	CONT	79/08/07	$60,000

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	FOREIGN COUNTRIES ISRAEL					
** RESEARCH **						
HEBREW UNIV., JERUSALEM	DEVELOPMENT OF METHODS FOR DETECTION OF VIRUSES IN WATER AND SOIL	SHUVAL, HILLEL	80658801	NEW	79/09/25	$63,997

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	FOREIGN COUNTRIES SWITZERLAND					
** RESEARCH **						
WORLD RADIATION CENTER, DAVOS SAVOS-DORF	UV-DATA BANK	FROHLICH, C.	80714601	NEW	79/09/26	$39,750

APPLICANT / MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	FOREIGN COUNTRIES YUGOSLAVIA					
** RESEARCH **						
INSTITUTE FOR MEDICAL RES. ZAGREB	EFFECT OF ENVRN. POLLUTANTS IN RELATION TO AGE & DIETARY INFLUENCE: 1. TOXIC TRACE ELEMENTS	KOSTIAL, K.	80464101	INCR	79/09/26	$100,000
MEDICAL RES & OCCUP HLTH, INST FOR ZAGREB	TOXICOLOGY OF PESTICIDES	REINER, ELSA	80453904	CONT	79/06/19	$25,000

*PROJECT: 005212-OPTICAL EFFECTS OF ATMOSPHERIC AEROSOLS

TASK =GC2P -000535 **EPA=R800665-13 ** (GRANT)
STARTING/ COMPLETION DATE : 01/75 - 03/80 : FY80

EPA OFFICER.: TG ELLESTAD EPA/ESRL - RTP FTS 8-629-2253
INVESTIGATOR.: AP WAGGONER UNIV OF WASHINGTON ENG DEPT
MILESTONES...: 12/79 -FIELD STUDY
03/80 -REPORT ON OPTICAL EFFECTS OF ATMOSPHERIC AEROSOLS
PROGRAM ID...: (PE-C2P) ATMOS TRANS OF ENERGY RELATED POLLUTANTS
FINAL OUTPUT.: REPORT ON OPTICAL EFFECTS OF ATMOSPHERIC AEROSOLS
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: SUMMER 1979 FIELD STUDY HAS BEEN COMPLETED AND DATA IS CURRENTLY BEING ANALYZED.
ORDIS CODES..: RECN-005212 SSIE-GMA 6124 1 EPA -R800665-13 ORD -RG10B30-1080
LABN-G832B-EA-014 PE -C2P
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS SUPPLEMENTAL PROGRAM IS TO SUPPORT THE UNIVERSITY OF WASHINGTON'S PARTICIPATION IN THE DECEMBER 1979 VISTTA FIELD STUDY. APPROACH: A) MEASURE: OPTICAL SCATTERING EXTINCTION. PARTICLE SIZE DISTRIBUTION, O3. AND SO2. INSTRUMENTS TO BE USED INCLUDE (1) A 32-WAVELENGTH TELEPHOTOMETER, (2) AN AEROSOL SIZING SYSTEM CONSISTING OF AN OPTICAL PARTICLE COUNTER, ELECTROSTATIC MOBILITY ANALYZER, AND DATA SYSTEM, (3) CONTINUOUS GAS MONITORS FOR SO2 AND O3.

*PROJECT: 001867-OPTICAL EFFECTS OF ATMOSPHERIC AEROSOL

TASK =G603A-AG-011 **EPA=R800665-13 ** (GRANT)
STARTING/ COMPLETION DATE : 01/75 - 09/78 : FY78

EPA OFFICER.: TG ELLESTAD EPA/ESRL - RTP FTS 8-629-2253
INVESTIGATOR.: AP WAGGONER UNIV OF WASHINGTON ENG DEPT
RJ CHARLSON UNIV OF WASHINGTON ENG DEPT
MILESTONES...: 09/78 -ORD REPORT ON ANTHROPOGENIC CONTRIBUTION TO VISIBILITY LOSS
PROGRAM ID...: (PE-603) TRANS. AND FATE OF POLLUTANTS -AIR
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-001867 SSIE-GMA 2652 3 EPA -R800665-13 ORD -RG10B30-1078
LABN-G603A-AE-18 PE -603
PROJ STATUS..: PROJECT-HISTORICAL INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: THIS CONTINUES OUR PAST STUDIES RELATING AEROSOL SOURCES, PHYSICAL AND CHEMICAL PROPERTIES OF THE PARTICLES, EFFECTS OF RELATIVE HUMIDITY TO ATMOSPHERIC OPTICAL PROPERTIES SUCH AS RADIATIVE CLIMATE AND VISIBILITY. INCLUDED WILL BE STUDIES OF THE RELATIONSHIPS OF PARTICLE PROPERTIES AND SYNOPTIC SCALE TRANSPORT.

*PROJECT: 004395-PROCESS AUTOMATION EVALUATION

TASK =CC36 -02TE01 **EPA=S803602-05 ** (GRANT)
STARTING/ COMPLETION DATE : 05/75 - 09/80 : FY80

EPA OFFICER.:	IJ KUGELMAN	EPA/MERL - CINC	FTS 8-684-7631	
INVESTIGATOR.:	RC POLTA	METRO WASTE CONTROL COMM	ST. PAUL	MN 55101
	DA STULC	METRO WASTE CONTROL COMM	ST. PAUL	MN 55101
	RC RICE	METRO WASTE CONTROL COMM	ST. PAUL	MN 55101

MILESTONES...: 07/76 -REPORT ON EXISTING I&A
12/78 -REPORT ON SLUDGE THICKENING
11/80 -REPORT ON VACUUM FILTER
03/81 -REPORT ON INCINERATOR

PROGRAM ID...: (PE-C36) URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY

MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT

CURR. RESULTS: SUCCESFUL DEMONSTRATION OF BLANKET LEVEL IN SLUDGE THICKENING WAS DEMON. PAYBACK PROVIDES 6 MONTHS CONTROL ALGORITHYMS HAVE BEEN DEVELOPED FOR VACCUM FILTER AND INCENERATOR ON LINE DEMONSTRATION IS NOW IN PROGRESS.

ORDIS CODES..:	RECN-004395	SSIE-GMA 5578 1	EPA -S803602-05	ORD -RC10B30-1079
	LABN-C821B-02TE01	PE -C36		
PROJ STATUS..:	ACTIVE -MULTIYEAR	INFO-UPDATED	ENTERED - UNKNOWN	UPDATED- 06-28-80
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT.....: OBJECTIVE: TO DEVELOP AND DEMONSTRATE AUTOMATED CONTROL STRATEGIES FOR POTW ESPECIALLY FOR SLUDGE HANDLING. APPROACH: 1. EVALUATE EFFICACY OF EXISTING AUTOMATION AT MWCC PLANTS. 2. AUTOMATION FOR SLUDGE THICKENING, VACUUM FILTRATION, INCINERATION AND ANAEROBIC DIGESTION BASED ON THEORY AND PRESENT MANUAL PRACTICES.

*PROJECT: 001842-THEORETICAL STUDIES OF AEROSOL DYNAMICS

TASK =G603A-AC-005 **EPA=R803660-03 ** (GRANT)
STARTING/ COMPLETION DATE : 04/75 - 03/79 : FY79

EPA OFFICER.: JL DURHAM EPA/ESRL - RTP FTS 8-629-2181
INVESTIGATOR.: JR BROCK UNIV OF TEXAS SCH OF ENG/CHEM ENG
MILESTONES...: 08/78 -FIELD STUDY TO AEROSOL DEPOSITION RATE
03/79 -ORD FINAL REPORT
PROGRAM ID...: (PE-603) TRANS. AND FATE -AIR
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: AROSOL VALIDATED FOR TRANSPORT OF COARSE PRIMARY PARTICLES IN PHOENIX. AEROSOL DEPOSITION VELOCITIES OBSERVED DURING DAYTIME TO BE ABOUT 1 CM/SEC. WHICH IS FACTOR OF 10 GREATER THAN CURRENTLY ADOPTED VALUE. NO RADIOACTIVE PLUMES MADE.
ORDIS CODES..: RECN-001842 SSIE-GMA 3880 2 EPA -R803660-03 ORD -RG10B30-1079
LABN-G603A-AE-09 PE -603
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: (1) TO DEVELOP THEORETICAL MODELS THAT DESCRIBE THE EVOLUTION OF AEROSOL SIZE DISTRIBUTIONS IN URBAN ATMOSPHERES IN THE PLUMES, (2) TO MEASURE THE DRY DEPOSITION RATES OF AEROSOLS FOR USE IN THE MODELS AEROSOL REMOVAL TERM, AND (3) TO PERFORM MEASUREMENTS OF RADIOACTIVE AEROSOL CONTENT OF POWER PLANT PLUME FROM COAL BURNING STATION. APPROACH: (1) THE NUMERICAL COMPUTER MODEL AROSOL WILL BE USED TO PREDICT 3-DIMENSIONAL CONCENTRATION PATTERNS IN URBAN AREAS. THE PROCESSES TO BE TAKEN INTO ACCOUNT INCLUDE: ADVECTION, HORIZONTAL AND VERTICAL DIFFUSION, COAGULATION, CONDENSATION, DRY DEPOSITION, POINT AND AREA SOURCES, AND NUCLEATION. (A) A FAST-RESPONSE ELECTRO-IMPACTOR WILL BE USED TO MEASURE AEROSOL DRY DEPOSITION RATES FOR PARTICLES WITH DIAMETERS 0.2-4 MICROMETERS BY THE EDDY-CORRELATION METHOD. (3) A POWER PLANT PLUME WILL BE SAMPLED WITH AN AIRCRAST TO DETERMINE THE CONCENTRATION AND TYPE OF ALPHA RADIATION BEING EMITTED BY AEROSOLS.

•PROJECT: 001946-REACTIONS OF SULFUR DIOXIDE IN AEROSOLS

TASK •G603A-AC-008 • •EPA•R803814-0352• • (GRANT)
STARTING/ COMPLETION DATE : 08/75 - 08/79 : FY79

EPA OFFICER..: JL DURHAM   EPA/ESRL - RTP   FTS 8-629-2181
INVESTIGATOR.: DM HIMMELBLAU   UNIV OF TEXAS   SCH OF ENG/CHEM ENG
MILESTONES...: 08/79 -COMPARISON OF EXPERIMENTAL MEASUREMENTS W/MODEL PREDICTIONS BASED
PROGRAM ID...: (PE-603)   TRANS. AND FATE -AIR
FINAL OUTPUT.: COMPARISON OF EXPERIMENTAL MEASUREMENTS W/MODEL PREDICTIONS BASED ON MASS TRANSFER THEORY AND BULK REACTION RATE CONSTANTS.
MANDATE......: 10-02   CLEAN AIR ACT
CURR. RESULTS: EXPERIMENTAL MEASUREMENTS INDICATE THAT REACTION RATE CONSTANTS OBTAINED IN BULK WATER SYSTEMS MAY BE COMBINED WITH MASS TRANSPORT THEORY TO YIELD REACTION RATE FOR SUSPENDED AEROSOLS.
ORDIS CODES..: RECN-001946   SSIE-GMA 3578 4   EPA -R803814-0352   ORD -RG10830-1079
LABN-G625B-EA-22   PE -603
PROJ STATUS..: PROJECT-ACTIVE   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- JUL-SEP 79
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: TO MEASURE THE CHEMICAL REACTION RATE AND EXTENT OF REACTION OF SULFUR DIOXIDE IN AIR WITH AEROSOL DROPLETS CONTAINING CATALYTIC IONS OR OXIDANTS. APPROACH: AEROSOLS ARE PASSED THROUGH A FLOW REACTOR IN WHICH THEY ARE CONTACTED WITH SULFUR DIOXIDE LABELED WITH S-35. FROM THE AEROSOL RESIDENCE TIME AND S-35 TRANSFERRED TO THE AEROSOL, THE SULFUR DIOXIDE OXIDATION RATE IS DEDUCED FROM MASS TRANSFER/CHEMICAL REACTION MODELS FOR REACTIVE DROPLETS. RESULTS TO DATE: EXPERIMENTAL MEASUREMENTS OF SULFUR DIOXIDE OXIDATION IN MANGANEOUS SULFATE SOLUTION AEROSOLS INDICATE THAT THE PSEUDO-FIRST ORDER REACTION RATE CONSTANT IS APPROXIMATELY 0.01/SEC. THIS RESULT INDICATES THAT REACTION RATE CONSTANTS OBTAINED IN BULK WATER SYSTEMS MAY BE COMBINED WITH MASS TRANSPORT THEORY TO YIELD THE REACTION RATE FOR SUSPENDED AEROSOLS.

·PROJECT: 001932-FORMATION OF ATMOSPHERIC AEROSOLS

TASK ·G603A-AC-007 ··EPA·R803851-03 ·· (GRANT)
STARTING/ COMPLETION DATE : 07/75 - 04/79 : FY79

EPA OFFICER.: WE WILSON EPA/ESRL - RTP FTS 8-629-2582
INVESTIGATOR.: KT WHITBY UNIV OF MINNESOTA DEPT OF MECH ENG
PROGRAM ID...: (PE-603) TRANS. AND FATE -AIR
MANDATE.......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-001932 SSIE-GMA 3942 2 EPA -R803851-03 ORD -RG10B30-1079
LABN-G6258-EA-08 PE -603
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: AEROSOL SIZE DISTRIBUTIONS HAVE BEEN MEASURED IN THE ST. LOUIS AREA AS PART OF EPA'S PROJECT MISTT USING AIRCRAFT AND GROUND-BASED, SELF-CONTAINED MOBILE LABORATORIES. THE UNIVERSITY OF MINNESOTA'S PORTION OF THE PROJECT INCLUDED AEROSOL MEASUREMENTS ABOARD AN AIRCRAFT AND THE OPERATION OF A MOBILE VAN ON THE GROUND UNDER THE PLUMES. REPORTS WERE PREPARED ON DATA ANALYSIS, THE DEVELOPMENT OF NEW ANALYSIS TECHNIQUES AND RESULTS OF AEROSOL DATA OBTAINED OVER THE PAST SEVERAL YEARS IN PROJECT MISTT AND THE ROADWAY AEROSOL STUDY. AEROSOL SIZE DISTRIBUTIONS FOR EPA'S PROJECT STATE (SULFUR TRANSPORT AND TRANSFORMATION IN THE ENVIRONMENT) IN TENNESSEE AND FOR EPA'S PROJECT SCRUB IN ALABAMA AND MINNESOTA WERE MADE. THE STATE PROGRAM IS DIRECTED TO DESCRIBING REACTIONS AND ATMOSPHERIC PROCESSES AFFECTING PLUME BEHAVIOR OVER TIME SCALES OF 12-96 HOURS AND DISTANCES OUT TO 1000 KM. BY CONTRAST THE SCRUB PROGRAM WILL PROVIDE AN ASSESSMENT OF THE TRANSPORT AND TRANSFORMATION OCCURRING WITHIN A POWER PLANT PLUME WITH AN SO2 SCRUBBER OUT TO DISTANCES OF ABOUT 200 KM AND TRAVEL TIMES MOSTLY LESS THAN 12 HOURS.

*PROJECT: 001877-FORMATION OF ATMOSPHERIC AEROSOLS

TASK *G603A-AA-019 *-EPA*R803851-0354** (GRANT)
STARTING/ COMPLETION DATE : 05/77 - 04/79 : FY79

EPA OFFICER..:	WE WILSON	EPA/ESRL - RTP		FTS 8-629-2582
INVESTIGATOR..:	KT WHITBY	UNIV OF MINNESOTA		DEPT OF MECH ENG
MILESTONES...:	04/79 -COMPLETE DATA ANALYSIS			
PROGRAM ID...:	(PE-603)	TRANS. AND FATE -AIR		
MANDATE......:	10-02 CLEAN AIR ACT			
ORDIS CODES...:	RECN-001877	SSIE-GMA 2528 4	EPA -R803851-0354	ORD -RG10630-1079
	LABN-G603A-AH-003	PE -603		
PROJ STATUS..:	PROJECT-HISTORICAL	INFO-UPDATED	ENTERED - UNKNOWN	UPDATED- JAN-MAR 80
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT......: AEROSOL SIZE DISTRIBUTIONS HAVE BEEN MEASURED IN THE ST. LOUIS AREA AS PART OF EPA'S PROJECT MISTT USING AIRCRAFT AND GROUND-BASED SELF-CONTAINED MOBILE LABORATORIES. THE UNIVERSITY OF MINNESOTA'S PORTION OF THE PROJECT INCLUDED AEROSOL MEASUREMENTS ABOARD AN AIRCRAFT AND THE OPERATION OF A MOBILE VAN ON THE GROUND UNDER THE PLUMES. THE PAST YEAR WAS DEVOTED PRIMARILY TO DATA ANALYSIS. THE DEVELOPMENT OF NEW ANALYSIS TECHNIQUES AND REPORTING RESULTS OF AEROSOLS DATA OBTAINED OVER THE PAST SEVERAL YEARS IN PROJECT MISTT AND THE ROADWAY AEROSOL STUDY. DURING THE COMING YEAR THE PARTICLE TECHNOLOGY LABORATORY OF THE UNIVERSITY OF MINNESOTA WILL BE MEASURING AEROSOL SIZE DISTRIBUTION FOR EPA'S PROJECT STATE (SULFUR TRANSPORT AND TRANSFORMATION IN THE ENVIRONMENT) IN TENNESSEE AND FOR EPA'S PROJECT SCRUB IN ALABAMA AND MINNESOTA. THE STATE PROGRAM IS DIRECTED TO DESCRIBING REACTIONS AND ATMOSPHERIC PROCESSES AFFECTING PLUME BEHAVIOR OVER TIME SCALES OF 12-96 HOURS AND DISTANCES OUT TO 1000 KM. BY CONTRAST THE SCRUB PROGRAM WILL PROVIDE AN ASSESSMENT OF THE TRANSPORT AND TRANSFORMATION OCCURRING WITHIN A POWER PLANT PLUME WITH AN SO2 SCRUBBER OUT TO DISTANCES OF ABOUT 1000 KM AND TRAVEL TIMES MOSTLY LESS THAN 12 HOURS. RESOURCES WILL BE PROVIDED TO COMPLETE DATA ANALYSIS AND REPORT ON PROJECT MISTT AND TO PARTICIPATE IN THE PLANNING OF PROJECT SCRUB AND THE SUBSEQUENT DATA ANALYSIS. OTHER TASKS INCLUDE THE MEASUREMENT OF GASEOUS AND AEROSOL POLLUTANTS UNDER AND IN PLUMES BEING CHARACTERIZED IN PROJECT STATE AND DEVELOPMENT OF AN AEROSOL MOBILITY CHROMATOGRAPH TO DETERMINE MOLECULAR COMPOSITION OF SULFUR-CONTAINING AEROSOLS.

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*PROJECT: 005722-ISOLATION AND STUDY OF CHLORO-ORGANICS RESULTING FROM CHLORINATION OF
                 SEAWATER
                  TASK =QC2N -000021 **EPA=R803893-03  ** (GRANT)
                  STARTING/ COMPLETION DATE : 07/75 - UNK   :   FY80
 EPA  OFFICER..: WP DAVIS              EPA/ERL -GULF BREEZE            CML (803) 859-0371
 INVESTIGATOR..: JH CARPENTER          UNIV OF MIAMI                   MAR & ATMOS SCI
 MILESTONES....: 05/79 -REPORT
 PROGRAM ID....: (PE-C2N )           TRANS,FATE, AND EFFECTS OF ENERGY REL POLLUTANTS
 MANDATE.......: 40-99
 ORDIS CODES...: RECN-005722         SSIE-GMA  2478 5      EPA -R803893-03       ORD -R010830-4080
                 LABN-0625A-0021     PE   -C2N
 PROJ STATUS...: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN     UPDATED- 06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
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ABSTRACT......: OBJECTIVE: SEEKS TO IDENTIFY THE CHLORINE-CONTAINING AND BROMINE-CONTAINING ORGANIC COMPOUNDS THAT ARE FORMED WHEN CHLORINE IS ADDED TO SEAWATER. INITIAL EMPHASIS WOULD BE PLACED ON STUDY OF REACTION CONDITIONS THAT OCCUR DURING POWER PLANT OPERATIONS. TOTAL ORGANIC HALOGENATED COMPOUNDS YIELD WOULD BE MEASURED. THE REACTION PRODUCTS WOULD BE FRACTIONATED, USING SELECTIVE SOLUBILITY AND THIN LAYER CHROMATOGRAPHY. CHARACTERIZATION WOULD BE CARRIED OUT USING GAS CHROMATOGRAPHIC-MASS SPECTRAL TECHNIQUES AND ADDITIONAL CHARACTERIZATION WOULD BE BASED ON UV AND IR SPECTRA WITH NMR FOR SPECIAL CASES.

9.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA 5803929-02

TITLE OF PROJECT

South Carolina Overland Flow Project

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

1. John E. Jenkins, P.E., Deputy Commissioner, Environmental Quality Control, South Carolina Department of Health and Environmental Control
2. Thomas E. Pollock, Assistant Professor of Environmental Systems Engineering, Clemson University
3. Malcolm M. Watkins, Project Officer, S.C. Dept. of Health and Environmental Control

NAME AND ADDRESS OF APPLICANT INSTITUTION

South Carolina Department of Health and Environmental Control
Environmental Quality Control
2600 Bull Street, Columbia, South Carolina 29201

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

An overland flow treatment system was built at Easley during first two year project period. This is nearing completion and will be ready for start up by September 1978. This grant will be for operation and testing at the facility, in order to determine treatment efficiences for varied application rates and application schedules.

*PROJECT: 000924-CONTROLLED LANDFILL STABILIZATION BY LEACHATE RECYCLE

TASK =C818A-S1TC25 **EPA=R803953 ** (GRANT)
STARTING/ COMPLETION DATE : 07/75 - 12/79 : FY79

EPA OFFICER.: DR BRUNNER EPA/MERL - CINC FTS 8-684-7871
INVESTIGATOR.: F POHLAND GEORGIA INST OF TECH SCH OF CIVIL ENG
R WISCOVITCH GEORGIA INST OF TECH SCH OF CIVIL ENG
MILESTONES....: 02/78 -INTERIM REPORT ON DECOMPOSITION RATES
05/80 -FINAL REPORT ON PILOT SCALE EVALUATION OF LEACHATE RECYCLE CONCEPT
PROGRAM ID....: (PE-818) CONTROL TECHNOLOGY - SOLID WASTE
FINAL OUTPUT.: PILOT SCALE EVALUATION OF LEACHATE RECYCLE CONCEPT.
MANDATE.......: 10-05 RESOURCE CONSERVATION AND RECOVERY ACT
20-14 DAA FOR SOLID WASTE
30-99
CURR. RESULTS: STABILIZATION APPEARED TO BE DEPENDENT ON TEMPERATURE AS WELL AS LEACHATE RECYCLE; REPORTS PRESENTED AT SHWRD ANNUAL SYMPOSIA.
ORDIS CODES...: RECN-000924 SSIE-GMA 3929 2 EPA -R803953 ORD -RC10B30-5079
LABN-C618A-7032 PE -818
PROJ STATUS...: PROJECT-COMPLETED INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVES: THE OBJECTIVES OF THE PROPOSED WORK ARE TO CONFIRM LABORATORY STUDIES OF THE LEACHATE RECYCLE CONCEPT WITH LARGER, PROTOTYPE TEST CELLS AND TO ELUCIDATE INFORMATION ON MASS FLUX OF GAS AND LEACHATE COMPONENTS, WITH PARTICULAR ATTENTION TO THE EFFECT OF EVAPOTRANSPIRATION ON THE RATES AND QUANTITIES OF LEACHATE. APPROACH: TWO DOUBLY-LINED TEST CELLS, 12 X 12 X 10 FEET HIGH, ONE COMPLETELY CLOSED FOR QUANTITATIVE GAS MEASUREMENT AND THE OTHER COVERED WITH SOIL AS IS THE USUAL PRACTICE AT LANDFILLS, WILL RECEIVE IDENTICAL VOLUMES OF WATER AND WEIGHT OF SHREDDED SOLID WASTE. THE MOISTURE CONTENT WILL BE BROUGHT TO 60 PERCENT (WET WEIGHT) BY ADDING DIGESTED SEWAGE SLUDGE DURING CONSTRUCTION. GAS WILL BE MONITORED FOR CO2, CH4, AND OTHER CONSTITUENTS AND TOTAL VOLUME; LEACHATE WILL BE MONITORED FOR BOD, COD, TOC, TOTAL AND INDIVIDUAL VOLATILE ACIDS, ALKALINITY, ACIDITY, PH, NITROGEN AND PHOSPHORUS, CHLORIDES, SULFIDES OR SULFATES, AND PERTINENT HEAVY AND ALKALINE EARTH METALS. THE SOLID WASTE OF EACH CELL WILL BE SAMPLED AT THE START AND COMPLETION OF THE TESTS FOR VISUAL AND QUANTITATIVE CHARACTERIZATION. OUTPUT: MASS FLUX WILL BE DETERMINED FOR THE CONTAMINANT MONITORED AND ANALYSES MADE TO INTERPRET AND CONTROL THE STABILIZATION PROCESS. MODIFICATIONS TO THE BASIC SYSTEMS OPERATION WILL BE MADE AS REQUIRED. THE ENERGY GENERATION POTENTIAL, METHANE PRODUCTION, WILL BE ASSESSED. RECOMMENDED DESIGN AND CONTROL PROCEDURES FOR LEACHATE CONTAINMENT AND RECYCLE WILL BE DEVELOPED. A RIGOROUS ASSESSMENT OF THE COST/BENEFITS OF THE RECYCLE CONCEPT, IN CONTEXT OF DAILY OPERATION/IMPLEMENTATION, INCLUDING ECONOMIC AND TECHNICAL FEASIBILITY, AND THE EXTENT OF POTENTIAL APPLICATION WILL BE PREPARED.

·PROJECT: 004566-KANEOHE BAY - RESOURCES OF A TROPICAL ESTUARY TO RELAXATION OF SEWAGE STRESS
TASK =X614 -000001 ··EPA=R803983-03 ·· (GRANT)
STARTING/ COMPLETION DATE : 11/75 - 11/78 : FY78

EPA OFFICER.: KT PEREZ — EPA/OHR- DAA — 838-4843
INVESTIGATOR.: SV SMITH — UNIV OF HAWAII SYSTEM — HAWAII INST MARINE BIOLOGY
MILESTONES...: 11/78 -FINAL REPORT
PROGRAM ID...: (PE-614) DRINKING WATER
MANDATE......: 30-99 ECOLOGICAL
CURR. RESULTS: FIELD MONITORING AND FIELD AND LAB EXPERIMENTS BEING PERFORMED. HAVE PUBLISHED SEVERAL PAPERS AND TWO ANNUAL REPORTS TO DATE.
ORDIS CODES..: RECN-004566 SSIE-GMA 5577 EPA -R803983-03 ORD -RX10830-3078
PE -614
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVES: TO ASCERTAIN THE BIOLOGICAL AND CHEMICAL RESPONSES TO A TROPICAL CORAL REEF/ESTUARY ECOSYSTEM TO THE TERMINATION OF SEWAGE STRESS. TO WHAT EXTENT AND AT WHAT RATE DOES THE ECOSYSTEM RETURN TO PRE-STRESS CONDITIONS? APPROACH: FIELD MONITORING AND FIELD AND LABORATORY EXPERIMENTS ARE BEING PERFORMED. WE HAVE 1-PLUS YEARS OF TIME-SERIES PRE-DIVERSION BASELINE DATA, AND WE ANTICIPATE COLLECTING 1-PLUS YEARS OF POST DIVERSION RECOVERY DATA. WE WILL THEN BE ABLE TO DOCUMENT THE RECOVERY CHARACTERISTICS OF THE ECOSYSTEM AND DERIVE PREDICTIVE ABILITY THEREFROM. WE HAVE PUBLISHED SEVERAL PAPERS AND HAVE PREPARED TWO ANNUAL REPORTS TO DATE.

·PROJECT: 003797-KANEOHE BAY - RESPONSES OF A TROPICAL ESTUARY TO RELAXATION OF SEWAGE STRESS
TASK =P608C-000009 ··EPA=R803983-03 ·· (GRANT)
STARTING/ COMPLETION DATE : 11/75 - 11/79 : FY79

EPA OFFICER.: KT PEREZ — EPA/ERL - NARR — FTS 8-838-4843
INVESTIGATOR.: SV SMITH — UNIV OF HAWAII SYSTEM — HAWAII INST MARINE BIOLOGY
MILESTONES...: 11/79 -PROJECT COMPLETION DATE, FINAL REPORT
PROGRAM ID...: (PE-608) ECOLOGICAL PROCESSES AND EFFECTS
FINAL OUTPUT.: PROJECT COMPLETION DATE, FINAL REPORT.
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: OVER 1 YEAR TIME-SERIES BASELINE DATA. SEVERAL PAPERS PUBLISHED AND TWO ANNUAL REPORTS PREPARED. RESEARCH COMPLETED, FINAL REPORT IN PROCESS.
ORDIS CODES..: RECN-003797 SSIE-GMA 4248 2 EPA -R803983-03 ORD -RP10831-1079
LABN-P775 -091 PE -608
PROJ STATUS..: PROJECT-COMPLETED INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVES: TO ASCERTAIN THE BIOLOGICAL AND CHEMICAL RESPONSES OF A TROPICAL CORAL REEF/ESTUARY ECOSYSTEM TO THE TERMINATION OF SEWAGE STRESS. TO WHAT EXTENT AND AT WHAT RATE DOES THE ECOSYSTEM RETURN TO PRE-STRESS CONDITIONS? APPROACH: FIELD MONITORING AND FIELD AND LABORATORY EXPERIMENTS ARE BEING PERFORMED. WE HAVE 1 PLUS YEARS OF TIME-SERIES PRE-DIVERSION BASELINE DATA, AND WE ANTICIPATE COLLECTING 1 PLUS YEARS OF POST DIVERSION RECOVERY DATA. WE WILL THEN BE ABLE TO DOCUMENT THE RECOVERY CHARACTERISTICS OF THE ECOSYSTEM AND DERIVE PREDICTIVE ABILITY THEREFROM. WE HAVE PUBLISHED SEVERAL PAPERS AND HAVE PREPARED TWO ANNUAL REPORTS TO DATE.

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*PROJECT: 001896-MEASUREMENT OF TROPOSPHERIC AND STRATOSPHERIC TRACE GASES BY GAS
                 CHROMATOGRAPHY
                   TASK =G603A-AF-005 **EPA=R804033     ** (GRANT)
                   STARTING/ COMPLETION DATE : 04/77 - 00/80 :   FY79
  EPA  OFFICER.: PL HANST                EPA/ESRL - RTP                FTS 8-629-2998
  INVESTIGATOR.: DR CRONN                WASHINGTON STATE UNIV         DEPT OF CIVIL & ENV ENGIN
                 RA RASMUSSEN            WASHINGTON STATE UNIV         DEPT OF CIVIL & ENV ENGIN
                 E  ROBINSON             WASHINGTON STATE UNIV         DEPT OF CIVIL & ENV ENGIN
  MILESTONES...: 12/80 -FINAL REPORT
  PROGRAM ID...: (PE-603 )          TRANS. AND FATE -AIR
  MANDATE......: 10-02     CLEAN AIR ACT
  ORDIS CODES..: RECN-001896          SSIE-GMA  2753 3      EPA -R804033          ORD -RG10B30-1079
                 LABN-G603A-AI-004    PE   -603
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  OCT-DEC 79
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: THE OBJECTIVE IS TO MAKE MEASUREMENTS OF THE VERTICAL CONCENTRATION DISTRIBUTIONS OF SELECTED TRACE
                  GAS SPECIES IN THE TROPOSPHERE AND LOWER STRATOSPHERE. EMPHASIS WILL BE PLACED ON DETERMINATIONS OF
                  HALOCARBONS AND NON-METHANE HYDROCARBONS. DETERMINATION OF THE CONCENTRATIONS OF THE HALOCARBON
                  SPECIES WILL BE ACCOMPLISHED BY THE METHODS OF ELECTRON CAPTURE - GAS CHROMATOGRAPHY AND GAS
                  CHROMATOGRAPHY-MASS SPECTROMETRY -WHILE GAS CHROMATOGRAPHY WITH FLAME IONIZATION DETECTION WILL BE
                  EMPLOYED FOR THE DETERMINATION OF THE HYDROCARBONS. SAMPLES WILL BE COLLECTED BY AIRCRAFT FLIGHTS
                  IN THE UNITED STATES.

*PROJECT: 001892-MEASUREMENT OF TROPOSPHERIC AND STRATOSPHERIC TRACE GASES BY GAS
                 CHROMATOGRAPHY
                   TASK =G603A-AI-001 **EPA=R804033-03  ** (GRANT)
                   STARTING/ COMPLETION DATE : 04/77 - 04/78 :   FY77
  EPA  OFFICER.: PL HANST                EPA/ESRL - RTP                FTS 8-629-2998
  INVESTIGATOR.: DR CRONN                WASHINGTON STATE UNIV         DEPT OF CIVIL & ENV ENGIN
                 RA RASMUSSEN            WASHINGTON STATE UNIV         DEPT OF CIVIL & ENV ENGIN
                 E  ROBINSON             WASHINGTON STATE UNIV         DEPT OF CIVIL & ENV ENGIN
  MILESTONES...: 02/78 -FINAL REFORT
  PROGRAM ID...: (PE-603 )          TRANS. AND FATE OF POLLUTANTS
  ORDIS CODES..: RECN-001892          SSIE-GMA  4702        EPA -R804033-03       PE   -603
                 LABT-EPE
  PROJ STATUS..: PROJECT-COMPLETED    INFO-ORIGINAL         ENTERED - UNKNOWN     UPDATED-  OCT-DEC 76
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: THIS IS ONE OF A MULTI-PART PROJECT WHOSE SUMMARY MAY BE IDENTICAL TO OTHERS. THE OBJECTIVE IS TO
                  MAKE MEASUREMENTS OF THE VERTICAL CONCENTRATION DISTRIBUTIONS OF SELECTED TRACE GAS SPECIES IN THE
                  TROPOSPHERE AND LOWER STRATOSPHERE. EMPHASIS WILL BE PLACED ON DETERMINATIONS OF HALOCARBONS AND
                  NON-METHANE HYDROCARBONS. DETERMINATION OF THE CONCENTRATIONS OF THE HALOCARBON SPECIES WILL BE
                  ACCOMPLISHED BY THE METHODS OF ELECTRON CAPTURE-GAS CHROMATOGRAPHY AND GAS CHROMATOGRAPHY-MASS
                  SPECTROMETRY WHILE GAS CHROMATOGRAPHY WITH FLAME IONIZATION DETECTION WILL BE EMPLOYED FOR THE
                  DETERMINATION OF THE HYDROCARBONS. SAMPLES WILL BE COLLECTED BY AIRCRAFT FLIGHTS IN THE UNITED
                  STATES.
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*PROJECT: 001087-A LONGITUDINAL EVALUATION OF LEAD BODY BURDEN IN GROWING CHILDREN

TASK =DC60 -2E0001 **EPA=R804168-03 ** (GRANT)
STARTING/ COMPLETION DATE : 05/76 - 06/81 : FY80

EPA OFFICER.: RK MIDAY EPA/HERL - CINC FTS 8-684-7461
INVESTIGATOR.: AH LUBIN CHILDRENS HOSPITAL COLUMBUS OH 43205
MILESTONES...: 04/79 -DELIVERY OF ALL MOTHERS ENROLLED
01/81 -COMPLETION OF 24 MONTH FOLLOW-UP PERIOD
06/81 -ANALYSIS OF LEAD TRENDS COMPLETED
PROGRAM ID...: (PE-C60) HEALTH EFFECTS - DRINKING WATER
FINAL OUTPUT.: ANALYSIS OF LEAD TRENDS
MANDATE......: 10-15 SAFE DRINKING WATER ACT
CURR. RESULTS: INITIAL DATA INDICATE CORRELATION BETWEEN LEAD IN BLOOD OF MOTHER, CORD BLOOD LEAD, AND NEWBORN INFANT LEAD VALUES. LEAD IN DUST RESULTS CONFIRM DUST TO BE SIGNIFICANT SOURCE OF LEAD INTAKE.
ORDIS CODES..: RECN-001087 SSIE-GMA 5393 2 EPA -R804168-03 ORD -RD10B30-1080
LABN-D614 -017 PE -C60
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS STUDY IS TO ASSESS THE ASSOCIATION OF BIOCHEMICAL NUTRITIONAL AND GROWTH PARAMETERS WITH THE AMOUNT OF EXPOSURE OF COMMONLY ACCEPTED SOURCES OF ENVIRONMENTAL LEAD (AIR, DUST AND WATER) DURING THE MOTHER'S PREGNANCY AND IN THE OFFSPRING'S SUBSEQUENT FIRST TWO YEARS OF LIFE. APPROACH: APPROXIMATELY 200 CHILDREN IN EACH OF THREE CITIES, COLUMBUS, OHIO; BOSTON, MASSACHUSETTS; AND NEW BEDFORD, MASSACHUSETTS ARE BEING ENROLLED AND PROSPECTIVELY FOLLOWED DURING THE FIRST TWO YEARS OF LIFE, WITH FREQUENT PERSONAL AND ENVIRONMENTAL SAMPLING.

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*PROJECT: 001206-ASBESTOS IN DOMESTIC WATER SUPPLIES AND CANCER INCIDENCE IN FIVE
          CALIFORNIA COUNTIES
            TASK =D614B-000081 **EPA=R804366-02  ** (GRANT)
            STARTING/ COMPLETION DATE : 04/76 - 12/78 :   FY78
 EPA  OFFICER.: LJ MCCABE               EPA/HERL - CINC
 INVESTIGATOR.: RC COOPER               UNIV OF CALIFORNIA           DEPT OF BIOMED & ENV HLTH
                JC MURCHIO              UNIV OF CALIFORNIA           DEPT OF BIOMED & ENV HLTH
                RS PAFFENBARGER         UNIV OF CALIFORNIA           DEPT OF BIOMED & ENV HLTH
 MILESTONES...: 04/77 -ANNUAL REPORT
                04/78 -FINAL REPORT
 PROGRAM ID...: (PE-614 )          DRINKING WATER
 MANDATE......: 10-13    SOLID WASTE DISPOSAL ACT
 ORDIS CODES..: RECN-001206        SSIE-GMA  2770 2     EPA -R804366-02      ORD -RD10B30-1078
                LABN-D614B-013D    PE  -614
 PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  OCT-DEC 77
                CATEGORY-RESEARCH  ACCESS-PUBLIC
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ABSTRACT.....: THE OBJECTIVE OF THE PROJECT IS TO DETERMINE THE ASSOCIATION BETWEEN THE PRESENCE OF ASBESTOS FIBERS IN DRINKING WATER AND THE INCIDENCE OF CANCER IN THE POPULATION SERVED BY SUCH WATER SUPPLIES. THE STUDY WILL BE DIVIDED INTO THREE OVERLAPPING PHASES: THE FIRST PHASE DEALS WITH THE IDENTIFICATION AND DESCRIPTION OF SAN FRANCISCO BAY AREA WATERSHED AND WATER DISTRIBUTION SYSTEMS, WHICH WILL INCLUDE: THE SITE OF WATER SOURCES, THEIR GEOMORPHIC COMPOSITION, GEO-POLITICAL AREA SERVED, METHOD OF WATER TREATMENT AND MEANS OF DISTRIBUTION. THE SECOND PHASE WILL BE DIRECTED TOWARDS THE DETERMINATION OF NUMBER, SIZE AND TYPE OF ASBESTOS FIBERS PRESENT IN THE VARIOUS WATER SUPPLIES BEFORE AND AFTER TREATMENT AND AFTER DISTRIBUTION. THE THIRD PHASE WILL INVOLVE A TABULATION OF TUMOR INCIDENCE AND CANCER MORTALITY DATA FROM THE 3RD NATIONAL CANCER SURVEY CONDUCTED IN THE FIVE SAN FRANCISCO BAY AREA COUNTIES UNDER CONSIDERATION. CORRELATIONS BETWEEN THE OBSERVED OCCURRENCE OF ASBESTOS IN DRINKING WATER AND THE INCIDENCE OF HUMAN CANCER WILL BE DETERMINED USING THE INFORMATION GATHERED IN THE THREE PHASES OF THIS STUDY.

*PROJECT: 006667-STUDIES TO IMPROVE RELIABILITY & SENSITIVITY OF BACT. MUTAGENESIS AS SCREEN FOR ENV. CARCINOGENS
TASK =HC1T -988700 *-EPA=R804395 -* (GRANT)
STARTING/ COMPLETION DATE : 04/76 - 05/80 : FY80

EPA OFFICER.: MD WATERS — EPA/HERL - RTP — FTS 8-629-2537
INVESTIGATOR.: UNKNOWN — WASHINGTON UNIV — ST LOUIS — MO 63130

MILESTONES...: 08/77 -REPORT ON MICROSOMAL EFFECT WITH STRAIN TA 1538
01/78 -REPORT ON MUTAGENESIS SCREENING OF URINE
05/80 -ANALYSIS OF CHEMICAL WORKERS URINE
05/80 -ANALYSIS OF COKE OVEN WORKERS URINE
06/80 -FINAL REPORT

PROGRAM ID...: (PE-C1T) HEALTH EFFECTS - TOXICS
MANDATE......: 10-99 NONE
ORDIS CODES..: RECN-006667 SSIE-HZ 809887 EPA -R804395 ORD -RH10B30-1080
PE -C1T
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE DETECTION OF MUTAGENS IN THE URINE OF WORKERS IN EXCESS OF APPROPRIATE CONTROLS MAY BE INDICATIVE OF EXPOSURE TO GENOTOXIC AGENTS. THE IMPLEMENTATION OF METHODOLOGY TO DETECT SUCH PHENOMENA IN WORKERS IS A REASONABLE FIRST STEP TO THE APPLICATION OF SIMILAR APPROACHES IN THE AMBIENT ENVIRONMENT. THE GRANTEE HAS DEVELOPED TECHNIQUES TO CONCENTRATE URINE AND BIOASSAY MUTAGENS USING A MODIFICATION OF THE AMES PROCEDURE. THESE TECHNIQUES ARE TO BE IMPLEMENTED UNDER FIELD CONDITIONS AS AN EXTENSION OF THE ORIGINAL GRANT. PLANNING HAS BEGUN ON A STUDY TO EXAMINE THE URINE OF SALT MINE WORKERS EXPOSED TO HIGH CONCENTRATIONS OF DIESEL EXHAUST. MANY PROBLEMS INCLUDING THOSE WITH MINEWORKERS UNION, MINE MANAGEMENT, AND COGNIZANT GOVERNMENTAL AGENCIES ARE BEING WORKED OUT.

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*PROJECT: 002811-STUDIES TO IMPROVE THE RELIABILITY AND SENSITIVITY OF BACTERIAL
                 MUTAGENESIS AS A SCREEN FOR ENVIRONMENTAL CARCINOGENS
                   TASK =H629A-007911 **EPA=R804395-02  ** (GRANT)
                   STARTING/ COMPLETION DATE : 04/76 - 04/79 :   FY78
  EPA OFFICER.: MD WATERS             EPA/HERL - RTP               FTS 8-629-2537
  INVESTIGATOR.: B  COMMONER          WASHINGTON UNIV              CTR FOR NATURAL SYS
                 A  VITHAYATHIL       WASHINGTON UNIV              CTR FOR NATURAL SYS
                 M  KOMERYNSKY        WASHINGTON UNIV              CTR FOR NATURAL SYS
                 S  NAIR              WASHINGTON UNIV              CTR FOR NATURAL SYS
  MILESTONES...: 06/77 -REPORT ON THE LIQUID SUSPENSION SYSTEM
                 08/77 -REPORT ON MICROSOMAL EFFECT WITH STRAIN TA1528
                 01/78 -REPORT ON MUTAGENESIS SCREENING OF URINE
                 10/78 -REPORT ON ISOLATION AND PURIFICATION OF BEEF EXTRACT MUTAGEN
  PROGRAM ID...: (PE-629 )          HEALTH EFFECTS -TOXIC SUBSTANCES
  MANDATE......: 10-06     FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
                 30-99     MICROBIAL MUTAGENESIS
  ORDIS CODES..: RECN-002811       SSIE-GMA  4282 1      EPA -R804395-02       ORD -RH10B30-5078
                 LABN-H629A-8911   PE  -629
  PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  OCT-DEC 77
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVES: THE PROPOSED PROGRAM OF RESEARCH IS DESIGNED TO IMPROVE THE RELIABILITY AND SENSITIVITY OF THE BACTERIAL MUTAGENESIS TECHNIQUES AS A SCREEN FOR THE DETECTION OF ENVIRONMENTAL CARCINOGENS. IN ORDER TO ACHIEVE THIS OBJECTIVE THE RESEARCH IS CONCENTRATING ON ELUCIDATING THE MECHANISM OF MICROSOMAL ACTIVATION WHICH OCCURS IN THIS TECHNIQUE AND OF IMPROVING THE SPECIFICITY OF THIS PROCESS. APPROACH: THE BASIC APPROACH EMPLOYED IN THIS RESEARCH PROGRAM IS TO ANALYZE THE BIOCHEMICAL MECHANISMS INVOLVED IN MICROSOMAL ACTIVATION. CURRENT PLANS: CURRENT RESEARCH PLANS ARE DESIGNED TO ELUCIDATE FURTHER OUR RECENT DISCOVERY THAT MICROSOME PREPARATIONS ARE THEMSELVES CAPABLE OF INDUCING A SIGNIFICANT INCREASE IN THE MUTATION RATES OF TWO STRAINS OF SALMONELLA, TA-1533 AND TA-98. SPECIFICALLY, WE PLAN TO DESCRIBE THE BIOCHEMICAL PROCESSES CARRIED OUT BY THE MICROSOMES THAT MEDIATE THIS EFFECT AND THE SUBSTANCES IN THE BACTERIAL CELLS THAT ARE ACTED UPON.

*PROJECT: 002629-STUDIES TO IMPROVE THE RELIABILITY AND SENSITIVITY OF BACTERIAL MUTAGENESIS AS A SOURCE FOR ENVIRONMENTAL CARCINOGENS
TASK =H615A-008977 *-EPA=R804395-02 ** (GRANT)
STARTING/ COMPLETION DATE : 04/76 - 04/79 : FY78

EPA OFFICER.: MD WATERS EPA/HERL - RTP FTS 8-629-2537
INVESTIGATOR.: B COMMONER WASHINGTON UNIV CTR FOR NATURAL SYS
A VITHAYATHIL WASHINGTON UNIV CTR FOR NATURAL SYS
M KOMERYNSKY WASHINGTON UNIV CTR FOR NATURAL SYS
S NAIR WASHINGTON UNIV CTR FOR NATURAL SYS
MILESTONES...: 06/77 -REPORT ON THE LIQUID SUSPENSION SYSTEM
08/77 -REPORT ON MICROSOMAL EFFECT WITH STRAIN TA1528
01/78 -REPORT ON CUTANESIS SCREENING OF URINE
10/78 -REPORT ON ISOLATION AND PURIFICATION OF BEEF EXTRACT MUTAGEN
PROGRAM ID...: (PE-615) HEALTH EFFECTS- PESTICIDES
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
30-99 MICROBIAL MUTAGENESIS
ORDIS CODES..: RECN-002629 SSIE-GMA 5475 EPA -R804395-02 ORD -RH10B30-5078
PE -615
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVES: THIS RESEARCH PROGRAM IS DESIGNED TO IMPROVE THE RELIABILITY AND SENSITIVITY OF THE AMES BACTERIAL MUTAGENESIS TECHNIQUE AS A SCREEN FOR THE DETECTION OF ENVIRONMENTAL CARCINOGENS. IN ORDER TO ACHIEVE THIS OBJECTIVE THE RESEARCH IS CONCENTRATING ON ELUCIDATING THE MECHANISM OF MICROSOMAL ACTIVATION WHICH OCCURS IN THIS TECHNIQUE AND ON IMPROVING THE SPECIFICITY OF THIS PROCESS. APPROACH: THE BASIC APPROACH EMPLOYED IN THIS RESEARCH PROGRAM IS TO ANALYZE THE BIOCHEMICAL MECHANISM INVOLVED IN MICROSOMAL ACTIVATION. CURRENT PLANS: CURRENT RESEARCH PLANS ARE DESIGNED TO ELUCIDATE FURTHER THE RECENT DISCOVERY THAT MICROSOME PREPARATIONS ARE THEMSELVES CAPABLE OF INDUCING A SIGNIFICANT INCREASE IN THE MUTATION RATES OF TWO STRAINS OF SALMONELLA. TA-1538 AND TA-98. SPECIFICALLY, IT IS PLANNED TO DESCRIBE THE BIOCHEMICAL PROCESSES CARRIED OUT BY THE MICROSOMES THAT MEDIATE THIS EFFECT AND THE SUBSTANCES IN THE BACTERIAL CELLS THAT ARE ACTED UPON.

PROJECT: 004954-CHLORINATION OF AQUATIC HUMIC SUBSTANCES

TASK =CC61 -S1T024 ··EPA=R804430 ·· (GRANT)
STARTING/ COMPLETION DATE : 07/76 - 12/79 : FY80

EPA OFFICER.: AA STEVENS EPA/MERL - CINC FTS-8-684-7228
INVESTIGATOR.: RF CHRISTMAN UNIV OF NORTH CAROLINA DEPT OF ENV SCI & ENGIN
JD JOHNSON UNIV OF NORTH CAROLINA DEPT OF ENV SCI & ENGIN
FK PFAENDER UNIV OF NORTH CAROLINA DEPT OF ENV SCI & ENGIN
MILESTONES...: 07/77 -INTERIM REPORT
07/78 -INTERIM REPORT
04/80 -FINAL REPORT PUBL.
PROGRAM ID...: (PE-C61) DRINK WATER TREATMENT & GROUND WATER PROT
MANDATE......: 10-15 SAFE DRINKING WATER ACT
CURR. RESULTS: SIGNIFICANT NEW INFORMATION GENERATED REGARDING CHEMICAL STRUCTURE OF AQUATIC HUMIC MATERIALS AND NATURE OF THEIR REACTIONS WITH AQUEOUS FREE CHLORINE AS USED AS DRINKING WATER DISINFECTANT.
ORDIS CODES..: RECN-004954 SSIE-GMA 6037 1 EPA -R804430 ORD -RC10B30-1080
LABN-C824A-S1T024 PE -C61
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: THE OBJECTIVES OF THIS RESEARCH PROJECT ARE TO A) ESTABLISH THE RELATIVE CONTRIBUTION TO TOTAL TRIHALOMETHANE PRODUCTION OF NATURAL AQUEOUS HUMIC MATERIAL IN WATERS FROM DIFFERENT SOURCES, B) CHARACTERIZE THE CHEMICAL NATURE OF THE REACTIONS THAT OCCUR BETWEEN AQUEOUS HUMIC MATERIALS AND CHLORINE, AND C) ASSESS THE WATER TREATMENT IMPLICATIONS OF PRECHLORINATION OF HUMIC-CONTAINING WATERS WITH RESPECT TO THE FORMATION OF TRIHALOMETHANES AND OTHER CHLORINATED ORGANIC SPECIES. THE EXPERIMENTAL APPROACH INCLUDES LABORATORY CHLORINATION STUDIES AND GC/MS IDENTIFICATION OF REACTION PRODUCTS WITH DIFFERENT NATURAL HUMIC WATERS AND VARIOUS MODEL HUMIC STRUCTURES. A WIDE RANGE OF MODEL ORGANIC COMPOUNDS REPRESENTATIVE OF NATURAL HUMIC MATERIAL WILL BE CHLORINATED OVER A RANGE OF PH, CHLORINE TO CARBON RATIOS, AND TEMPERATURES REPRESENTATIVE OF CONDITIONS IN WATER TREATMENT PLANT OPERATIONS. TRIHALOMETHANES AND TOTAL ORGANIC CHLORINE CONCENTRATIONS WILL BE MEASURED. HUMIC FRACTIONS EXTRACTED FROM RAW WATER SUPPLIES WILL ALSO BE CHLORINATED, IN THE PRESENCE AND ABSENCE OF SURFACE AND TREATED IN THE SAME MANNER AS THE MODEL COMPOUNDS.

*PROJECT: 006334-TOXICOLOGY OF PESTICIDES

TASK *HC86 -949400 **EPA*R804539 ** (GRANT)
STARTING/ COMPLETION DATE : 06/76 - 06/80 : FY80
EPA OFFICER..: RL BARON EPA/HERL - RTP FTS 8-629-2655
INVESTIGATOR.: REINER INST FOR MED RES & OCCUP HLTH
MILESTONES...: 05/81 -DDT IN MILK AND SERUM-FULL REPORT
05/79 -URINARY PHOSPHATE METHODS REPORT
05/81 -OPTHALMOLOGICAL TESTING REPORT
05/80 -SACCADE VELOCITY TESTING DEVELOPED
05/81 -PSYCHOMOTOR TESTING REPORT
05/81 -KINETICS OF CHOLINESTERASE INHIBITION
05/81 -FINAL REPORT
PROGRAM ID...: (PE-C86) HEALTH EFFECTS - PESTICIDES
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
ORDIS CODES..: RECN-006334 SSIE-HZ 809484 EPA -R804539 ORD -RH10B30-1080
PE -C86
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: TO ASSESS THE EFFECT OF PESTICIDE EXPOSURE ON OCCUPATIONALLY EXPOSED INDIVIDUALS ESPECIALLY WITH RESPECT TO CLINICAL SIGNS AND SYMPTOMS/ OPHTHALMOLOGICAL HAZARDS AND TO ESTABLISH ACCEPTABLE WORKING CONDITIONS. MODE OF ACTION OF ANTICHOLINESTERASE AGENTS ON TARGET SYSTEMS ARE BEING EXAMINED. NO REPORT. FINAL REPORT OF THIS PROJECT DUE IN EARLY PART OF FY 81.

*PROJECT: 006106-TOXICOLOGY OF PESTICIDES

TASK *H615 -948400 **EPA*R804539 ** (GRANT)
STARTING/ COMPLETION DATE : 06/76 - 06/80 : FY79
EPA OFFICER..: RL BARON EPA/HERL - RTP FTS 8-629-2655
INVESTIGATOR.: UNKNOWN INST FOR MED RES & OCCUP HLTH
MILESTONES...: 05/81 -DDT IN MILK AND SERUM-FULL REPORT
05/79 -URINARY PHOSPHATE METHODS REPORT
05/81 -OPTHALMOLOGICAL TESTING REPORT
05/80 -SACCADE VELOCITY TESTING DEVELOPED
05/81 -PSYCHOMOTOR TESTING REPORT
05/81 -KINETICS OF CHOLINESTERASE INHIBITION
05/81 -FINAL REPORT
PROGRAM ID...: (PE-615) HEALTH EFFECTS - PESTICIDES
MANDATE......: 20-30 AA FOR TOXIC SUBSTANCES
ORDIS CODES..: RECN-006106 SSIE-HZ 799484 EPA -R804539 ORD -RH10B30-2079
LAEV-H615 -948400 PE -615
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: TO ASSESS THE EFFECT OF PESTICIDE EXPOSURE ON OCCUPATIONALLY EXPOSED INDIVIDUALS ESPECIALLY WITH RESPECT TO CLINICAL SIGNS AND SYMPTOMS/ OPHTHALMOLOGICAL HAZARDS AND TO ESTABLISH ACCEPTABLE WORKING CONDITIONS. MODE OF ACTION OF ANTICHOLINESTERASE AGENTS ON TARGET SYSTEMS ARE BEING EXAMINED. NO REPORT. ANNUAL REPORT PRESENTED IN PREVIOUS QUARTER.

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*PROJECT: C03890-TOXIC, SUBLETHAL AND LATENT EFFECTS OF SELECTED PETROLEUM HYDROCARBONS
                 AND BARIUM SULFATE ON MARINE ORGANISMS
                   TASK =QC2N -000029 **EPA=R804541-02  ** (GRANT)
                   STARTING/ COMPLETION DATE : 05/76 - UNK  :  FY80
  EPA  OFFICER..: NL RICHARDS                 EPA/ERL -GULF BREEZE              FTS-8-686-9011
  INVESTIGATOR..: KR RAO                      UNIV OF WEST FLORIDA              DEPT OF BIOL
  MILESTONES....: 05/79 -REPORT
  PROGRAM ID....: (PE-C2N )          TRANS,FATE, AND EFFECTS OF ENERGY REL POLLUTANTS
  MANDATE.......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
                  10-11      MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT
                  20-10      AA FOR WATER AND WASTE MANAGEMENT
                  20-62      DAA FOR ENVIRONMENTAL ENGIN. AND TECHNOLOGY
                  30-99      GENETICS
  CURR. RESULTS: METHODS DEVELOPED TO DETECT DEVELOPMENTAL EFFECTS OF
                  XENOBIOTICS.  BIOACCUMULATION OF XENOBIOTICS USED IN
                  OFFSHORE OIL AND GAS EXPLORATION ESTABLISHED.
  ORDIS CODES...: RECN-003890          SSIE-GMA  2794 4      EPA -R804541-02       ORD -RQ10630-5080
                  LABN-0625F-Q029      PE  -C2N
  PROJ STATUS...: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                  CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT......: OBJECTIVE: EXAMINE THE TOXIC, SUBLETHAL AND LATENT EFFECTS OF POLYCYCLIC AROMATIC HYDROCARBONS AND
                   BARIUM SULFATE ON LARVAL AND ADULT STAGES OF SELECTED INVERTEBRATES. APPROACH: PERFORM LABORATORY
                   EXPERIMENTS ON MARINE ORGANISMS.

*PROJECT: 004804-MEASUREMENT OF HALOGENATED POLLUTANTS AND OTHER TRACE GASES IN THE
                 TROPOSPHERE BY LONG-PATH IN-SITU INFRARED ABSORPTION SPECTRO
                   TASK =G603A-AD-026 **EPA=R804546     ** (GRANT)
                   STARTING/ COMPLETION DATE : 06/79 - 05/80 :  FY79
  EPA  OFFICER..: PL HANST                    EPA/ESRL - RTP                    FTS 8-629-2998
  INVESTIGATOR..: J  PITTS                    UNIV OF CALIFORNIA                DEPT OF SOIL/ENV SCI
  MILESTONES....: 05/80 -FINAL REPORT
  PROGRAM ID....: (PE-603 )          TRANS. AND FATE -AIR
  MANDATE.......: 10-02      CLEAN AIR ACT
  CURR. RESULTS: O3, PAN, HNO3, HCOOH, AND CH2O CAN BE MONITORED
                  ON ROUTINE BASIS WITH FTS-IR SYSTEM.
  ORDIS CODES...: RECN-004804          SSIE-GMA  5815        EPA -R804546          ORD -RG10631-1079
                  PE  -603
  PROJ STATUS...: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                  CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT......: OBJECTIVE: THIS GRANT WILL PERMIT THE LONG PATH INFRARED STUDY OF THE LOS ANGELES ATMOSPHERE. THE
                   AMBIENT AIR OF LOS ANGELES WILL BE MONITORED FOR HNO3, HCOOH, H2CO, NH3, AND PAN. APPROACH: AMBIENT
                   AIR IS MONITORED WITH A LONG-PATH I.R. CELL EQUIPPED WITH A FTS SPECTROMETER. RESULTS TO DATE:
                   RESULTS FOR THE PAST NINE MONTHS HAVE SHOWN THAT O3, PAN, HNO3, HCOOH, AND CH2O CAN BE MONITORED ON
                   A ROUTINE BASIS WITH THE FTS-IR SYSTEM.
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*PROJECT: 002098-MEASUREMENT OF HALOGENATED POLLUTANTS AND OTHER TRACE GASES IN THE TROPOSPHERE IN SITU BY LONG-PATH INFRARED ABSORPTION SPECTRO
TASK *G712B-BB-002 **EPA*R804546-03 ** (GRANT)
STARTING/ COMPLETION DATE : 03/77 - 06/79 : FY78

EPA OFFICER..	P HENST	EPA/ESRL - RTP	
INVESTIGATOR.	JN PITTS	UNIV OF CALIFORNIA	AIR POLL RES CTR
	AM WINER	UNIV OF CALIFORNIA	AIR POLL RES CTR
	RA GRAHAM	UNIV OF CALIFORNIA	AIR POLL RES CTR
	EC TUAZON	UNIV OF CALIFORNIA	AIR POLL RES CTR

MILESTONES....: 07/79 -FINAL REPORT
PROGRAM ID....: (PE-T12) CHARAC. & MEASUREMENT METHODS DEVELOPMENT -AIR
ORDIS CODES...: RECN-002098 SSIE-GMA 2838 2 EPA -R804546-03 ORD -RG10B30-4078
PE -T12
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: A QUANTITATIVE CHARACTERIZATION OF AMBIENT PRIMARY AND SECONDARY TRACE POLLUTANT AS A FUNCTION OF TIME (BOTH DIURNALLY AND SEASONALLY) AND LOCATION (INCLUDING URBAN AREAS AND DOWNWIND RECEPTOR SITES) IS BEING CONDUCTED USING IN SITU, LONG-PATH, HIGH RESOLUTION FOURIER TRANSFORM INFRARED SPECTROSCOPY IN CONJUNCTION WITH CONVENTIONAL A STATE-OF-THE-ART ANALYTICAL METHODS FOR AMBIENT GAS PHASE AND PARTICULATE POLLUTANTS. RESULTS OF THE FIRST YEAR OF THIS PROGRAM AT RIVERSIDE INCLUDE THE FIRST POSITIVE IDENTIFICATION BY SPECTROSCOPIC TECHNIQUES OF FORMALDEHYDE AND NITRIC ACID IN AMBIENT PHOTOCHEMICAL SMOG, THE MEASUREMENT OF LOW LEVELS OF FORMIC ACID, AMMONIA AND A VARIETY OF HALOCARBONS, AND DETERMINATION OF UPPER LIMITS FOR THE POSSIBLE PRESENCE OF OTHER TRACE CONTAMINANTS. STUDIES WILL CONTINUE AT RIVERSIDE AND AT A MID-BASIN SITE, APPROXIMATELY FOUR TO SIX HOURS UPWIND OF RIVERSIDE, USING THE PART-PER-BILLION SENSITIVITY AFFORDED BY A KILOMETER OPTICAL PATHLENGTH MULTIPLE REFLECTION CELL, AND AN FTS-14 FOURIER TRANSFORM INFRARED SPECTROMETER (BOTH OF WHICH ARE THE PROPERTY OF THE EPA AND ARE ON LOAN TO SAPRC FOR THIS THREE-YEAR PROJECT). PORTABLE INSTRUMENTATION CURRENTLY EMPLOYED IN GAS PHASE AND PARTICULATE AMBIENT AIR MONITORING STUDIES AT SAPRC ARE OPERATED IN CONJUNCTION WITH THE LPIR DURING SELECTED SMOG EPISODES AT THE MONITORING LOCATIONS. THIS PROGRAM IS COORDINATED WITH AMBIENT AIR MONITORING STUDIES AT SAPRC SUPPORTED BY THE CALIFORNIA AIR RESOURCES BOARD AND THE DEVELOPMENT OF AN EXPERIMENTALLY VALIDATED MODEL FOR PHOTOCHEMICAL SMOG, FUNDED THROUGH NSF-RANN. EMPHASIS IS BEING PLACED ON THE QUANTITATIVE DETERMINATION OF PRODUCTS, LABILE INTERMEDIATES, AND PRIMARY POLLUTANTS FOR WHICH LITTLE, IF ANY, RELIABLE AMBIENT AIR DATA ARE CURRENTLY AVAILABLE. THESE NON-CRITERIA POLLUTANTS INCLUDE NITRIC ACID, NITROUS ACID, HALOCARBONS, HALOGENATED ACIDS, HYDROGEN PEROXIDE, NITROSAMINES, ALCOHOLS, EPOXIDES AND ORGANIC ACIDS, ALDEHYDES, AND OTHER CARBONYL COMPOUNDS. THESE ARE OF INTEREST PER SE, MAY BE TOXIC, AND ARE ALSO IMPORTANT FOR VALIDATING COMPUTERIZED KINETIC SMOG MODELS FOR CONTROL STRATEGIES.

•PROJECT: 003848-MATHEMATICAL MODELS OF FATES OF POLLUTANTS IN ESTUARIES

TASK =U60BC-000011 ••EPA=R804563-03 •• (GRANT)
STARTING/ COMPLETION DATE : 07/76 - 07/79 : FY79

EPA OFFICER..: TT DAVIES — EPA/ERL -GULF BREEZE — 904-932-5311
INVESTIGATOR.: DJ OCONNOR — MANHATTAN COLLEGE — ENV ENG & SCI DEPT
MILESTONES...: 07/79 -REPORT
PROGRAM ID...: (PE-608) ECOLOGICAL PROCESSES AND EFFECTS
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-99 OWPM
CURR. RESULTS: MODEL DESCRIBING ESTUARINE TRANSPORT DEVELOPED.
SPECIFIC APPLICATION WILL BE MADE TO JAMES RIVER ESTUARY.
ORDIS CODES..: RECN-003848 — SSIE-GMA 3246 3 — EPA -R804563-03 — ORD -R010830-5079
LABN-0608C-1-01 — PE -608
PROJ STATUS..: ACTIVE -MULTIYEAR — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- JUL-SEP 79
CATEGORY-RESEARCH — ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE QUANTIFICATION OF THE INTER-RELATIONSHIPS AMONG PHYSICAL, CHEMICAL, AND BIOLOGICAL VARIABLES OF ESTUARINE SYSTEMS, INCLUDING ANALYSIS OF TWO-LAYERED ESTUARINE TRANSPORT, EFFECTS ON SUSPENDED SOLIDS AND SALINITY, ABSORPTION/DESORPTION MECHANISMS FOR HAZARDOUS SUBSTANCES, AND FOOD CHAIN IMPLICATIONS. APPROACH: THE DEVELOPMENT OF A MATHEMATICAL MODEL CHARACTERIZING ESTUARINE TRANSPORT, VERIFYING THIS MODEL USING FIELD DATA FOR VELOCITY PROFILES AND SALINITY AND SOLIDS DISTRIBUTION. RESULTS TO DATE: A MODEL DESCRIBING ESTUARINE TRANSPORT HAS BEEN DEVELOPED. SPECIFIC APPLICATION WILL BE MADE TO THE JAMES RIVER ESTUARY IN ORDER TO ADDRESS KEPONE CONTAMINATION PROBLEMS.

•PROJECT: 006107-OZONE AND PULMONARY METABOLIC EFFECTS OF MEDIATORS AND HORMONES

TASK =H816 -910800 ••EPA=R804585 •• (GRANT)
STARTING/ COMPLETION DATE : 10/76 - 04/80 : FY79

EPA OFFICER..: DE GARDNER — EPA/HERL - RTP — FTS 8-629-2531
INVESTIGATOR.: UNKNOWN — CREIGHTON UNIV — OMAHA — NE 68131
PROGRAM ID...: (PE-816) HEALTH EFFECTS- CRITERIA POLLUTANTS - AIR
MANDATE......: 20-23 DAA FOR AIR QUALITY PLANNING AND STANDARDS
ORDIS CODES..: RECN-006107 — SSIE-HZ 799108 — EPA -R804585 — ORD -RH10B30-2079
LABN-H816 -910800 — PE -816
PROJ STATUS..: PROJECT-ACTIVE — INFO-ORIGINAL — ENTERED - 06-28-80 — UPDATED- 06-28-80
CATEGORY-RESEARCH — ACCESS-PUBLIC
ABSTRACT.....: INVESTIGATE THE PATHOPHYSIOLOGIC EFFECTS OF OZONE EXPOSURE AND TO DETERMINE IF OZONE CAN MODIFY THE LUNG METABOLISM OF A NUMBER OF VASOACTIVE SUBSTANCES TWO SIGNIFICANT EXPERIMENTS HAVE BEEN BROUGHT TO A CONCLUSION THIS QUARTER. FIRST, IT IS EVIDENT THAT THE RELEASE OF THROMBOXANE AND PROSTAGLANDIN F2 FROM LUNG TISSUE DURING EXPOSURE TO O3 IS A PROTECTIVE MECHANISM OF THE ANIMAL TO WITHSTAND OZONE TOXICITY. SECONDLY, IT WAS DETERMINED THA TOLERANCE ALSO DEVELOPED WITH RESPECT TO THE RELEASE OF THROMBOXANE A2 AND PROSTAGLANDIN F2. THE AMOUNT OF THESE SUBSTANCES RELEASED FROM THE LUNGS OF "TOLERATE" ANIMALS WAS NOT SIGNIFICANTLY DIFFERENT THAN CONTROLS. HENCE TOLERANCE. THESE RESULTS, WHEN CONSIDERED TOGETHER ARE HIGHL SIGNIFICANT RELATIVE TO THE HEALTH HAZARD OF O3 EXPOSURE BECAUSE (1) THE RELEASE OF T X A2 AND PGF2 TENDS TO PROTECT THE ANIMAL FROM THE LETHAL EFFECTS OF O3, AND (2) EXPOSURE TO A MARGINALLY EFFECTIVE CONCENTRATION OF O3 CAN PREVENT THE RELEASE OF THE PROTECTIVE SUBSTANCES WHEN THE ANIMA IS EXPOSED TO TOXIC CONCENTRATIONS OF O3.

*PROJECT: 001249-CASE-CONTROL STUDY OF WATER QUALITY AND CARCINOGENESIS IN PENNSYLVANIA

TASK =DC60 -1C0003 **EPA=R804594-01 ** (GRANT)
STARTING/ COMPLETION DATE : 11/76 - 02/81 FY80
EPA OFFICER..: DG GREATHOUSE EPA/HERL - CINC FTS 8-684-7368
INVESTIGATOR.: AK BAHN UNIV OF PENNSYLVANIA DEPT. OF COMM MEDICINE
J KEENAN UNIV OF PENNSYLVANIA DEPT. OF COMM MEDICINE
MILESTONES...: 04/80 -FINAL REPORT
PROGRAM ID...: (PE-C60) HEALTH EFFECTS - DRINKING WATER
MANDATE......: 20-13 DAA FOR DRINKING WATER
20-R03 EPA REGION III
CURR. RESULTS: MOST OF FIELD WORK COMPLETED AND RESULTANT DATA IS
BEING PREPARED FOR STATISTICAL ANALYSES.
ORDIS CODES..: RECN-001249 SSIE-GMA 4524 3 EPA -R804594-01 ORD -RD10830-2080
PE -C60
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVES: ONE OF THE MAJOR AIMS OF THE PROJECT IS TO DEVISE, DEVELOP, AND EVALUATE METHODS FOR EVALUATING POSSIBLE LINKS BETWEEN COLON CANCER AND SUBSTANCES IN DRINKING WATER. APPROACH: ALTERNATIVE METHODOLOGIC APPROACHES WILL BE EMPLOYED TO ACQUIRE THE NECESSARY DATA FOR ESTIMATION OF COLON CANCER RISKS ASSOCIATED WITH ORGANICS IN DRINKING WATER. THE MERITS OF EACH METHOD WILL BE ASSESSED AND EVALUATED IN TERMS OF COSTS OF IMPLEMENTATION AND SUCCESS IN EVALUATION OF RISKS.

*PROJECT: 002235-RESEARCH ON AIR SAMPLING FILTER MEDIA

TASK =G833D-EB-004 **EPA=R804600-02 ** (GRANT)
STARTING/ COMPLETION DATE : 08/76 - 08/81 : FY79
EPA OFFICER..: TG DZUBAY EPA/ESRL - RTP FTS 8-629-3157
INVESTIGATOR.: BY LIU UNIV OF MINNESOTA DEPT. OF MECH. ENG.
MILESTONES...: 08/81 -DELIVERY OF INSTRUMENTATION
PROGRAM ID...: (PE-833) MEASURE. SYS & INSTR. DEVEL FOR ENGIN.
FINAL OUTPUT.: DELIVERY OF INSTRUMENTATION
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: FILTER CHARACTERIZATION 75% COMPLETED; NO RESULTS.
FIRST PROTOTYPE INLET CONSTRUCTED; NO RESULTS.
ORDIS CODES..: RECN-002235 SSIE-GMA 3255 3 EPA -R804600-02 ORD -RG10831-1079
LABN-G712B-BE-37 PE -833
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: 1. CHARACTERIZE FLOW RESISTANCE AND EFFICIENCY OF FILTERS USED IN AEROSOL SAMPLING; 2. DEVELOP A CASCADE IMPACTOR COMPATIBLE WITH XRF ELEMENTAL ANALYSIS; 3. INVESTIGATE THEORY AND PRACTICE OF AEROSOL INLETS FOR PARTICLES AND FIBERS; 4. DEVELOP CARBON FIBER AEROSOL GENERATOR. APPROACH: 1. EXPERIMENTAL BENCH-SCALE STUDIES; 2. ADAPTATION OF CONVENTIONAL CASCADE IMPACTION THEORY; 3. THEORETICAL STUDIES AND CONSTRUCTION OF PROTOTYPE INLETS; 4. ADAPTATION OF FLUIDIZED BED DUST GENERATOR.

·PROJECT: 003675-LIMNOLOGICAL INVESTIGATIONS OF WATER QUALITY AND FISH LARVAE IN LAKE ERIE
TASK =N769 -000006 ··EPA=R804612-03 ·· (GRANT)
STARTING/ COMPLETION DATE : 04/76 - 12/81 : FY79

EPA OFFICER..: NA THOMAS EPA/ERL - DULUTH FTS 8-226-7811
INVESTIGATOR.: CE HERDENDORF OHIO STATE UNIV RES FOUND DEPT. OF PHARMACOLOGY
KW BEDFORD OHIO STATE UNIV RES FOUND DEPT. OF PHARMACOLOGY
MILESTONES....: 12/80 -FINAL REPORT ON THE IMPACT OF POWER PLANTS ON THE FISH LARVAE OF WESTERN AND CE
12/81 -ECOLOGICAL RESEARCH SERIES REPORT
PROGRAM ID...: (PE-769) GREAT LAKES PROGRAM
FINAL OUTPUT.: ECOLOGICAL RESEARCH SERIES REPORT
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-003675 SSIE-GMA 2824 3 EPA -R804612-03 ORD -RN10B30-1079
LABN-N6084-006 PE -769
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: THE OHIO STATE UNIVERSITY, CENTER FOR LAKE ERIE AREA RESEARCH (CLEAR) PROPOSED TO CONTINUE INVESTIGATIONS OF LAKE ERIE WATER QUALITY AND FISH LARVAE. THE WATER QUALITY STUDIES WILL EMPHASIZE THE IMPORTANCE OF SEDIMENT-WATER INTERACTIONS AND THEIR INFLUENCE ON WATER QUALITY AND BIOLOGICAL COMMUNITIES IN LAKE ERIE. LARVAL FISH INVESTIGATIONS WILL BE CONCENTRATED IN AREAS OF HIGHEST DENSITIES IN AN ATTEMPT TO MORE PRECISELY DEFINE THE PRESENT AND POTENTIAL IMPACT OF ELECTRIC POWER GENERATION ON THESE POPULATIONS. EFFORTS TO MODEL THE MORTALITY TO KEY FISH SPECIES WILL BE CONTINUED. THE GENERAL OBJECTIVES OF THE PROPOSED WORK INCLUDE: 1. DETERMINING OXYGEN DEMAND AND NUTRIENT REGENERATION IN THE SEDIMENT/WATER INTERFACE ZONE. 2. DETERMINING HYPOLIMNION FLUX AND RESPIRATION RATES. 3. INVESTIGATING SEDIMENT-WATER-BIOMASS INTERACTIONS OF TOXIC METALS. 4. MONITORING TOXIC METALS IN SEDIMENTS AT DREDGE DISPOSAL SITES SERVING ASHTABULA HARBOR. 5. STUDYING THE EFFECTS OF COMMON LAKE ERIE BENTHIC MACRO-INVERTEBRATES ON SEDIMENTS AND THE OVERLYING WATER COLUMN. 6. INVESTIGATING ZOOPLANKTON ABUNDANCE IN THE SEDIMENT/WATER INTERFACE ZONE. 7. ESTIMATING FISH LARVAE POPULATIONS IN WESTERN LAKE ERIE AND ASSESSING THE IMPACT OF INTAKE ENTRAINMENT ON THESE POPULATIONS. 8. PROVIDING LOGISTICAL AND ANALYTICAL SUPPORT FOR OTHER RESEARCH GROUPS CONDUCTING EPA SPONSORED RESEARCH ON LAKE ERIE. 9. SUPPORTING CONTINUED DEVELOPMENT AND VERIFICATION OF EPA WATER QUALITY, SEDIMENT DYNAMICS AND FISH LARVAE MORTALITY MODELS FOR LAKE ERIE. 10. PREPARING TECHNICAL REPORTS OF THE FINDINGS FOR EACH PHASE OF THE PROJECT. THE MAIN OBJECT IS TO FOLLOW CHANGES IN THE WATER QUALITY AS A RESULT OF NUTRIENT REMOVAL TO THE WESTERN BASIN. DETERMINE THE NUMBER OF FISH LARVAE IN WESTERN LAKE ERIE IN SUPPORT OF THE DETERMINATION ON THE IMPACT OF POWER PLANTS IN WESTERN LAKE ERIE.

•PROJECT: 005035-BIO-ORGANIC INDICATORS OF GROUNDWATER POLLUTION

TASK =L824C-000006 ••EPA=R804613 •• (GRANT)
STARTING/ COMPLETION DATE : 07/76 - 08/80 : FY79

EPA OFFICER.: WJ DUNLAP EPA/ERL - ADA FTS 8-743-2312
INVESTIGATOR.: FR LEACH OKLAHOMA STATE UNIV AGRIC EXP STA
LG MORRILL OKLAHOMA STATE UNIV AGRIC EXP STA
MILESTONES....: 12/79 -BIOCHEMICAL INDICATORS - A LITERATURE SURVEY
03/80 -SORPTION, PERSISTENCE, AND DEGRADATION OF ORGANIC COMPOUNDS IN SOILS - A LITERA
01/80 -MODIFIED ATP ANALYSIS
08/80 -SORPTION CHARACTERISTICS FOR SELECTED ORGANIC COMPOUNDS
08/80 -FINAL REPORT - BIOCHEMICAL INDICATORS
PROGRAM ID....: (PE-824) DRINK WATER TREAT & GROUND WATER PROT -DRINKING WATER
MANDATE.......: 10-15 SAFE DRINKING WATER ACT
ORDIS CODES...: RECN-005035 SSIE-GMA 6047 EPA -R804613 ORD -RL10B30-1079
LABN-L6098-16 PE -824
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: TO DETERMINE THE USEFULNESS OF BIOCHEMICAL AND ORGANIC INDICATORS OF GROUNDWATER POLLUTION. LITERATURE ANALYSIS AND METHOD DEVELOPMENT WILL BE FOLLOWED BY LABORATORY AND FIELD TESTING. TO IDENTIFY BIOCHEMICAL AND ORGANIC INDICATORS OF GROUNDWATER POLLUTION. THIS PROJECT IS IN TWO PARTS (1) BIOCHEMICAL INDICATORS: INVESTIGATE THE USE OF ATP, NUCLEIC ACID, PROTEINS, ORGANIC PHOSPHATES AND ENZYMES AS INDICATORS. DEVELOPMENT OF EXTRACTION AND ANALYSIS TECHNIQUES. (2) ORGANIC INDICATORS: STUDY SORPTION, RETENTION, AND MODIFICATION OF ORGANIC COMPOUNDS THAT ARE ADDED OR ARISE BY MICROBIAL OR CHEMICAL ACTION. PREDICT FATE OF SUCH COMPOUNDS AND DEVELOP ANALYTICAL TECHNIQUES. PARTICULAR EFFORT WAS DIRECTED TOWARD DEVELOPING METHODS OF IMPROVED SENSITIVITY FOR DETECTING PROTEIN, LIPOPOLYSACCHARIDES, DNA, ORGANIC PHOSPHATES, AND LACTATE DEHYDROGENASE IN ENVIRONMENTAL SAMPLES. FLUORESCENCE PROCEDURES APPEARED ESPECIALLY PROMISING IN DNA AND LACTATE DEHYDROGENASE ASSAYS. WORK ON METHODS FOR RECOVERING ATP FROM SOILS AND SUBSOILS WAS ALSO CONTINUED, WITH EMPHASIS ON EVALUATION OF THE EFFECTIVENESS OF VARIOUS EXTRACTION PROCEDURES. THE SENSITIVITY, PRECISION, AND ACCURACY OF THE LUCIFERIN-LUCIFERASE METHOD FOR ATP ANALYSIS HAS BEEN SIGNIFICANTLY IMPROVED. A REPORT BASED ON THE SURVEY OF AVAILABLE LITERATURE ON POTENTIAL BIOCHEMICAL INDICATORS OF SUBSURFACE POLLUTION HAS BEEN SELECTED FOR PUBLICATION AS A BOOK BY ANN ARBOR SCIENCE PUBLISHERS.

·PROJECT: 003379-REDUCTION OF SALINE POLLUTION OF THE GROUNDWATER ATTRIBUTED TO DAIRY OPERATIONS
TASK =L770D-000056 **EPA=R804620 ** (GRANT)
STARTING/ COMPLETION DATE : 08/76 - 03/80 : FY79

EPA OFFICER.:	LR SHUYLER	EPA/ERL - ADA	FTS 8-743-2302	
INVESTIGATOR.:	RW FERGUSON	CHINO BASIN MUN WATER DIST	CUCAMONGA	CA 91730
	N SMITH	UNIV OF CALIFORNIA	SCH OF PHARM	
	G LOFGREEN	UNIV OF CALIFORNIA	SCH OF PHARM	
	P PRATT	UNIV OF CALIFORNIA	SCH OF AGRIC SCI	
	S BISHOP	UNIV OF CALIFORNIA	SCH OF AGRIC SCI	
	D BELL	UNIV OF CALIFORNIA	SCH OF AGRIC SCI	

MILESTONES...: 12/79 -FINAL REPORT OR SERIES OF REPORTS PUBLISHED
PROGRAM ID...: (PE-770) RENEWABLE RESOURCES -WATER QUALITY
FINAL OUTPUT.: SERIES OF REPORTS ON EACH SUBJECT AREA.
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: FINAL REPORT IS BEING REVIEWED BY PROJECT OFFICER; HOWEVER ONE SECTION IS NOT COMPLETE AS GRANTEE HAS JUST FINISHED ADDITIONAL LAB WORK FOR SAID SECTION AND IS REWRITING THE SECTION. THIS IS EXPECTED FROM THE GRANTEE IN APRIL 80

ORDIS CODES..:	RECN-003379	SSIE-GMA 3827 2	EPA -R804620	ORD -RL10E30-1079
	LABN-L617D-25	PE -770		
PROJ STATUS..:	ACTIVE -MULTIYEAR	INFO-UPDATED	ENTERED - UNKNOWN	UPDATED- JUL-SEP 79
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT.....: OBJECTIVES: EVALUATION OF GROUNDWATER QUALITY IN THE CHINO HYDROLOGIC BASIN INDICATES DEGRADATION DUE TO SALINE POLLUTION LEACHED FROM THE WASTES OF DAIRY COWS. THE MANURE OF THESE ANIMALS IS KNOWN TO CONTAIN SOME NUTRITIONAL VALUE. TECHNOLOGY EXISTS BY WHICH THIS FEED CAN BE RECAPTURED. IF THE QUALITY OF THE FOOD PRODUCED IS COMPARABLE TO MORE NORMAL RATIONS A VIABLE MEANS OF WASTE DISPOSAL WILL BE AVAILABLE. THIS PROJECT IS DESIGNED TO TEST AND DEMONSTRATE THE VALUE OF THE FEED PRODUCED FROM COW MANURE. APPROACH: DAIRY COW MANURE WILL BE COLLECTED FROM DAIRIES IN SAN BERNARDINO COUNTY AND CONVERTED TO FEED PRODUCTS. THIS FEED WILL BE PRESENTED UNDER TEST CONDITIONS TO GROWING DAIRY HEIFERS, BEEF CATTLE AND CHICKENS TO DETERMINE ITS VALUE IN COMPARISON TO STANDARD RATIONS. LABORATORY EVALUATIONS SHALL BE CONDUCTED TO DETERMINE THE ABILITY OF THE FEED TO SUPPORT THE GROWTH OF RUMEN MICROBES AND TO ASSAY THE AMINO ACID CONTENT OF THE FEED. TOXIC METAL DEPOSITS IN THE FECES, TISSUES AND ORGANS OF THE ANIMALS FED IN THE PROGRAM SHALL BE EVALUATED. CURRENT PLANS: THE VARIOUS WORK PROJECTS OUTLINED IN THE APPROACH HAVE BEEN DELEGATED TO SEVERAL CAMPUSES OF THE UNIVERSITY OF CALIFORNIA AND SAN BERNARDINO STATE COLLEGE WHERE EXPERTS IN THE REQUIRED SCIENTIFIC FIELDS ARE ON STAFF. THESE PEOPLE WILL PERFORM THE WORK AND REPORT THEIR FINDINGS. SCHOOLS INVOLVED: (A) UNIVERSITY OF CALIFORNIA, DAVIS; (B) UNIVERSITY OF CALIFORNIA, RIVERSIDE; (C) CALIFORNIA STATE COLLEGE, SAN BERNARDINO. FINAL OUTPUT: A SERIES OF REPORTS ON EACH SUBJECT AREA PROGRESS TO DATE: ALL TEST AREAS ARE COMPLETE AND THE FINAL REPORT IS WELL UNDERWAY.

•PROJECT 001274-EFFECT OF ENVIRONMENTAL POLLUTANTS IN RELATION TO AGE AND DIETARY
INFLUENCE - TOXIC TRACE ELEMENTS
TASK -D834 -000004 ••EPA=R804641-01 •• (GRANT)
STARTING/ COMPLETION DATE : 10/76 - 03/80 : FY78

EPA OFFICER.: JF STARA — EPA/HERL - CINC
INVESTIGATOR.: K KOSTIAL — INST FOR MED RES/OCC HLTH — MINERAL METABOLISM
MILESTONES....: 02/77 -INITIATE STUDY
03/80 -FINAL REPORT
PROGRAM ID....: (PE-834) — HEALTH EFFECTS -ENERGY
ORDIS CODES...: RECN-001274 — SSIE-GMA 3484 1 — EPA -R804641-01 — ORD -RD10B30-4078
PE -834
PROJ STATUS..: PROJECT-COMPLETED — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- OCT-DEC 77
CATEGORY-RESEARCH — ACCESS-PUBLIC

ABSTRACT......: THIS WORK IS INTENDED TO EVALUATE VARIOUS FACTORS INFLUENCING THE EFFECT OF ENVIRONMENTAL POLLUTANTS ON RATS WITH PARTICULAR EMPHASIS ON TRACE ELEMENTS. SPECIAL ATTENTION WILL BE PAID TO DIFFERENCES IN ABSORPTION, DISTRIBUTION AND RETENTION IN RELATION TO AGE, TO THE ESTIMATION OF CRITICAL ORGANS IN THE IMMATURE, TO DIFFERENCES IN TOXICITY DUE TO AGE, TO LATE EFFECTS CAUSED BY INFANT EXPOSURE AND TO NUTRITIONAL FACTORS AND DEFICIENCIES AS THEY INFLUENCE TRACE ELEMENT METABOLISM AND EFFECTS. MOST OF THE EXPERIMENTAL WORK WILL BE PERFORMED ON RATS USING RADIOACTIVE ISOTOPES OF TRACE ELEMENTS FOR STUDYING VARIOUS METABOLIC PARAMETERS. (E.G. CD-115, HG-203, PB-203, MN-59 AND OTHERS). STABLE TRACE ELEMENTS WILL BE ADDED TO DIFFERENT DIETS TO EVALUATE THE EFFECTS OF CHRONIC EXPOSURES OF ONE MONTH OR LONGER AND THE INTERACTION OF TOXIC AND ESSENTIAL TRACE ELEMENTS. EXPERIMENTS ON HUMANS ARE ENVISAGED FOR A LATER STAGE.THESE INVESTIGATIONS ARE EXPECTED TO PROVIDE A BETTER BASIS FOR EVALUATING THE EFFECTS OF ENVIRONMENTAL POLLUTANTS IN THE YOUNG.

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*PROJECT: 004942-DETECTION, OCCURRENCE, CHARACTERIZATION, AND PERSISTENCE OF MICROBES IN
                 LANDFILL LEACHATE
                   TASK =CC73 -S1TO7A *-EPA=R804733      -- (GRANT)
                   STARTING/ COMPLETION DATE : 09/77 - 09/80 :   FY80
  EPA OFFICER..: DR BRUNNER              EPA/MERL - CINC                   FTS-8-684-7871
  INVESTIGATOR.: PV SCARPINO             UNIV OF CINCINNATI                SCH OF ENG/ELEC ENG TECH
  MILESTONES...: 09/77 -PROJECT START
                 09/80 -ASSESSMENT OF THE SIGNIFICANCE OF PATHOGENS AND THEIR INDICATORS IN LEACHATE
  PROGRAM ID...: (PE-C73 )         SOLID & HAZARDOUS WASTE
  FINAL OUTPUT.: ASSESSMENT OF SIGNIFICANCE OF PATHOGENS AND
                 THEIR INDICATORS IN LEACHATE.
  MANDATE......: 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                 10-13     SOLID WASTE DISPOSAL ACT
  CURR. RESULTS: LIMITED NUMBERS OF PATHOGENIC BACTERIA ISOLATED FROM
                 FIELD AND EXPERIMENTAL LANDFILLS.  SUMMARY PAPER
                 PRESENTED AT SHWRD'S SYMPOSIUM, 3/79.
                 INITIAL PHASE WILL VERIFY MICRIBIAL ANALYTICAL METHODS AND
                 AND DETERMINE THE PRESENCE OF STUDY ORGANISMS IN A' VARIETY
                 OF LEACHEATES.
  ORDIS CODES..: RECN-004943         SSIE-GMA  6035 1      EPA -R804733         ORD -RC10B30-1079
                 LABN-C618A-7038     PE  -C73
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVES: THE OBJECTIVE OF THIS PROJECT IS TO DETERMINE THE HEALTH AND ENVIRONMENTAL SIGNIFICANCE
                  OF THE PERSISTENCE OF FECAL STREPTOCOCCI FOUND IN LEACHATE FROM LANDFILLED MUNICIPAL REFUSE. THE
                  PROJECT WILL CONSIST OF TWO PHASES. APPROACH: THE INITIAL PHASE WILL VERIFY MICROBIAL ANALYTICAL
                  METHODS AND DETERMINE THE PRESENCE OF STUDY ORGANISMS IN A VARIETY OF LEACHATES. SAMPLES OF
                  LEACHATE FROM DIFFERENT SOURCES OF LANDFILLED WASTE REPRESENTING DIFFERENT STAGES OF WASTE
                  DECOMPOSITION (AGE OF LANDFILL) AND DIFFERENT OPERATIONAL CONDITIONS (BATCH VERSUS CONTINUOUS
                  DISPOSAL, CONTROLLED VERSUS NATURAL MOISTURE INFILTRATION) WILL BE ASSAYED FOR MICROBIAL AND
                  CHEMICAL CONTENT. MICROBIAL ASSAYS WILL INCLUDE TOTAL AEROBIC AND ANAEROBIC PLATE COUNTS,
                  INDICATORS OF FECAL POLLUTION, SELECTED BACTERIAL PATHOGENS (E.G. SALMONELLA, SHIGELLA, KLEBSIELLA,
                  AND MYCOBACTERIA) AND ANAEROBES (E.G. CLOSTRIDIA) AND THE MAJOR FUNGI OF PATHOGENIC SIGNIFICANCE.
                  CHEMICAL ANALYSES WILL BE USED TO DESCRIBE THE LEACHATE ENVIRONMENT. THE SECOND PHASE WILL STUDY
                  THE RELATIONSHIP BETWEEN THE EXTENT OF WASTE DECOMPOSITION AND THE MICROBIAL POPULATION DYNAMICS.
                  THREE EXPERIMENTAL LANDFILLS (SPECIALLY CONSTRUCTED 55-GAL. DRUMS) CONTAINING MUNICIPAL REFUSE,
                  MUNICIPAL REFUSE AND SEWAGE SLUDGE, AND HOSPITAL WASTE WILL BE CONSTRUCTED AND OPERATED AT 16" OF
                  NET INFILTRATION PER YEAR. LEACHATES WILL BE ASSAYED BI-WEEKLY INITIALLY AND LESS FREQUENTLY AS THE
                  RATE OF POPULATION CHANGES DECREASES.
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*PROJECT: 003708-RENEWAL OF WATER TEMPERATURE STUDIES AT THE USEPA MONTICELLO FIELD
          STATION
           TASK =N820A-000042 *·EPA=R804736-01  ** (GRANT)
           STARTING/ COMPLETION DATE : 09/76 - 06/80 :   FY79
 EPA  OFFICER..: KE HOKANSON          EPA/ERL - DULUTH            CML (612) 295-5145
 INVESTIGATOR..: H  STEFAN            UNIV OF MINNESOTA           DEPT OF CIVIL ENG
 MILESTONES....: 04/77 -COMPLETE DEVELOPMENT OF PHYSICAL MODEL
                 09/77 -COMPLETE ALL FIELD MEASUREMENTS
 PROGRAM ID....: (PE-820 )         FRESHWATER ECO EFFECTS  - WATER QUALITY
 MANDATE.......: 30-99     ECOLOGY
 CURR. RESULTS: LONGITUDINAL AND VERTICAL WATER TEMPERATURE AND PREDICTIVE
                 RATES REPORTED IN 3 STUDENT THESES.
                 STATISTICAL SUMMARY OF WATER TEMPERATURE HAS BEEN
                 PROVIDED ALONG WITH DESCRIPTION OF PHYSICAL CHARACTERISTICS
                 OF CHANNELS. DRAFT FINAL REPORT IN PREPARATION.
 ORDIS CODES...: RECN-003708       SSIE-GMA  2508 4     EPA -R804736-01      ORD -8N-0830-3079
                 LAEN-N608A-084    PE  -820
 PROJ STATUS...: ACTIVE -MULTIYEAR     INFO-UPDATED       ENTERED - UNKNOWN     UPDATED-  OCT-DEC 79
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
 ABSTRACT......: OBJECTIVE: TO PROVIDE INFORMATION ON THE WATER AND SOIL TEMPERATURE REGIMENS IN EXPERIMENTAL OUTDOOR
                  CHANNELS WHERE BIOLOGICAL EXPERIMENTS ARE CONDUCTED. TOGETHER WITH MEASURING VARIOUS WEATHER
                  PARAMETERS, DEVELOP A MATHEMATICAL MODEL TO PROVIDE AND PREDICT INPUTS AND OUTPUTS OF HEAT ENERGY.
                  APPROACH: FIELD DATA IS SUBJECTED TO STATISTICAL AND REGRESSION ANALYSIS TO GIVE INFOMATION ON
                  LOGITUDINAL WATER TEMPERATURE GRADIENTS, DIURNAL WATER TEMPERATURE FLUCTUATIONS, VERTICAL
                  STRATIFICATION, LONGITUDINAL DISPERSION AND RATE OF SURFACE HEAT LOSSES.
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*PROJECT: 001023-VIRUS-SOIL INTERACTIONS

                TASK =DC27 -1BOOO8 --EPA=R804743      -- (GRANT)
                STARTING/ COMPLETION DATE : 10/76 - 10/80 :   FY80
 EPA  OFFICER.: EW AKIN               EPA/HERL - CINC                FTS 8-684-7218
 INVESTIGATOR.: GW FUHS               STATE DEPT. OF HEALTH          BUFFALO                  NY 14203
 MILESTONES...: 10/79 -FINAL REPORT ON POLIOVIRUS INTERACTION WITH 33 SOIL/MINERAL SUBSTRATES
                10/80 -DATA ON THE FATE OF 5 HUMAN ENTERIC VIRUS IN CONTACT WITH GREATER THAN OR EQUAL
 PROGRAM ID...: (PE-C27 )          HEALTH EFFECTS - WATER QUALITY
 FINAL OUTPUT.: DATA ON FATE OF 5 HUMAN ENTERIC VIRUSES IN CONTACT
                WITH -33 SOIL/MINERAL SUBSTRATES
 MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
                20-12      DAA FOR WATER PROGRAM OPERATIONS
 CURR. RESULTS: LAB STUDIES COMPLETED.  ADSORPTION VARIED FROM 15 TO
                99.9% WITH LOWEST BEING OTTAWA SAND IN ECHOVIRUS STUDIES.
                NO CORRELATION BETWEEN VIRUS UPTAKE AND SUBSTRATE
                CHARACTERISTICS WAS OBSERVED.
 ORDIS CODES..: RECN-001023         SSIE-GMA  3449 3      EPA -R804743         ORD -RD10B30-5080
                LABN-D607A-004C     PE  -C27
 PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  JAN-MAR 80
                CATEGORY-RESEARCH   ACCESS-PUBLIC
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 ABSTRACT.....: OBJECTIVE: TO EVALUATE AND QUALIFY THE VIRUS-ADSORPTION CHARACTERISTICS OF 33 SOIL/MINERAL
                 SUBSTRATES AND 5 ENTERIC VIRUSES. THE INFLUENCE OF PRIOR EXPOSURE OF THE SUBSTRATES TO SEWAGE
                 EFFLUENTS AND SEWAGE ORGANISMS WILL ALSO BE EVALUATED. APPROACH: SUBSTRATES WILL BE GROUND TO FINE
                 MATERIALS AND CHARACTERIZED AS TO SOURCE, SURFACE AREA, PROTEIN CONTENT, ETC. RADIOLABELED VIRUS
                 WILL BE ADDED TO AQUEOUS SUSPENSIONS OF THE SUBSTRATES. VIRAL ADSORPTION WILL BE DETERMINED BY LOSS
                 OF INFECTIVITY AND LOSS OF RADIOACTIVITY FROM THE CLEAR SUPERNATE AFTER CENTRIFUGATION. CORRELATION
                 OF ADSORPTION AND SOIL CHARACTERISTICS WILL BE DETERMINED STATISTICALLY.
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•PROJECT: 004918-THE CONTINUOUS MONITORING OF PARTICULATE SULFUR COMPOUNDS BY FLAME PHOTOMETRY
TASK =G712B-BB-082 ••EPA=R804750-02 •• (GRANT)
STARTING/ COMPLETION DATE : 10/77 - 10/79 : FY79

EPA OFFICER..: RK STEVENS EPA/ESRL - RTP FTS 8-629-3155
INVESTIGATOR.: JJ NUTZICKER OREGON GRADUATE CTR DEPT OF ENV TECH
PROGRAM ID...: (PE-712) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: AN AUTOMATIC PARTICULATE SULFUR MONITOR COMPLETED WHICH USES SEQUENTIAL REMOVAL OF SULFUR COMPOUNDS AND REAL-TIME DATA HANDLING BY MICRO-PROCESSOR ELECTRONICS. INSTRUMENTS PERMIT NEAR REAL-TIME MEASUREMENTS OF TOTAL SULFUR PARTICULATES, TOTAL MINUS SULFURIC ACID AND TOTAL MINUS AMMONIUM SULFATE.
ORDIS CODES..: RECN-004818 SSIE-GMA 5786 EPA -R804750-02 ORD -RG10B30-1079
PE -712
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: DEVELOPMENT OF AN INSTRUMENT CAPABLE OF BOTH CONTINUOUSLY MONITORING PARTICULATE SULFUR AND DISTINGUISHING AMONG THE DIFFERENT CHEMICAL COMPOUNDS OF SULFUR. APPROACH: SULFUR IS DETECTED BY THE LUMINESCENCE RESULTING FROM COMBUSTION OF SULFUR COMPOUNDS IN A HYDROGEN RICH FLAME. SULFUR GASES ARE REMOVED FROM THE SAMPLE STREAM BY A DIFFUSION TUBE SCRUBBER. THE PRINCIPAL CONSTITUENTS OF ATMOSPHERIC SULFUR PARTICULATES, H2SO4 AND AMMONIUM (BI) SULFATE, ARE INDIVIDUALLY REMOVED FROM THE SAMPLE STREAM BY A THERMAL SPECIATION. THERMAL SPECIATION EMPLOYS A HEATED TUBE IN WHICH THE PARTICULATES CAN BE TRANSFERRED TO GASES AND REMOVED AT THEIR VAPORIZATION TEMPERATURES. RESULTS TO DATE: AN AUTOMATIC PARTICULATE SULFUR MONITOR HAS BEEN COMPLETED WHICH USES SEQUENTIAL REMOVAL OF SULFUR COMPOUNDS (AS DESCRIBED ABOVE) AND REAL-TIME DATA HANDLING BY MICRO-PROCESSOR ELECTRONICS. THE INSTRUMENTS PERMIT NEAR REAL-TIME MEASUREMENTS OF TOTAL SULFUR PARTICULATE, TOTAL MINUS SULFURIC ACID AND TOTAL MINUS AMMONIUM SULFATE.

•PROJECT: 001642-THE CONTINUOUS MONITORING OF PARTICULATE SULFUR COMPOUNDS BY FLAME PHOTOMETRY
TASK =G712B-BB-082 ••EPA=R804750-02 •• (GRANT)
STARTING/ COMPLETION DATE : 08/76 - 12/81 : FY79

EPA OFFICER.: RK STEVENS — EPA/ESRL - RTP — FTS 8-629-3155
INVESTIGATOR.: JJ HUNTZICKER — OREGON GRADUATE CTR — DEPT OF ENV TECH
MILESTONES...: 07/79 -COMPLETE DEVELOPMENT OF FLAME PHOTOMETRIC DETECTION
PROGRAM ID...: (PE-712) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
MANDATE......: 10-02 . CLEAN AIR ACT
CURR. RESULTS: AN AUTOMATIC PARTICULATE SULFUR MONITOR COMPLETED WHICH USES SEQUENTIAL REMOVAL OF SULFUR COMPOUNDS AND REAL-TIME DATA HANDLING BY MICRO-PROCESSOR ELECTRONICS. INSTRUMENTS PERMIT NEAR REAL-TIME MEASUREMENTS OF TOTAL SULFUR PARTICULATES, TOTAL MINUS SULFURIC ACID AND TOTAL MINUS AMMONIUM SULFATE.
ORDIS CODES..: RECN-001642 — SSIE-GMA 3281 2 — EPA -R804750-02 — ORD -RG10830-1079
PE -712
PROJ STATUS..: ACTIVE -MULTIYEAR — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- OCT-DEC 79
CATEGORY-RESEARCH — ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: 1. DEVELOP FIELD MONITOR TO MEASURE ATMOSPHERIC CONCENTRATIONS OF PARTICULATE SULFUR COMPOUNDS WITH A FLAME PHOTOMETRIC DETECTOR. 2. COMPLETE DEVELOPMENT OF MICROPROCESSOR TO COMPLETELY AUTOMATE ANALYSIS AND DATA REDUCTION. APPROACH: 1. DEVELOP GAS DENUDERS TO REMOVE GASEOUS SULFUR SPECIES AND H2SO DENUDE TO DIFFERENTIATE BETWEEN SULFURIC ACID AND OTHER AEROSOL SULFATES. 2. NEED TO DEVELOP HARDWARE AND SOFTWARE FOR DATA REDUCTION.

·PROJECT: 000194-MICROWAVE SYSTEM TO PREVENT HAZARDOUS MATERIAL DIKE FAILURES

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                TASK =BC33 -000192 **EPA=R804763-03  ** (GRANT)
                STARTING/ COMPLETION DATE : 09/76 - 10/79 :   FY80
EPA OFFICER.: JE BRUGGER            EPA/IERL - CINC             FTS-8-340-6634
INVESTIGATOR.: RM KOERNER           DREXEL UNIV                 PHILADELPHIA        PA 19104
               AE LORD              DREXEL UNIV                 PHILADELPHIA        PA 19104
MILESTONES...: 07/79 -COMPLETE PROJECT
               10/79 -FINAL REPORT RECEIVED
PROGRAM ID...: (PE-C33 )        INDUSTRIAL PROCESSES
FINAL OUTPUT.: MOBILE MICROWAVE UNIT TO DETERMINE UNDERGROUND
               WATER, IRREG., & DISCONTINUITIES IN EARTHEN DIKES.
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
               20-99     DOSMC, OW&HM,DC
ORDIS CODES..: RECN-000194       SSIE-GMA  3609 4      EPA -R804763-03       ORD -RB10B30-5078
               PE  -C33
PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED        ENTERED - UNKNOWN     UPDATED-  06-28-80
               CATEGORY-RESEARCH     ACCESS-PUBLIC
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ABSTRACT.....: THE DETECTION AND LOCATION OF WATER LEVELS, WATER POCKETS, VOIDS AND VARIOUS OTHER DISCONTINUITIES BETWEEN DIFFERENT LAYERS OF EARTH OR ROCK IS CRITICAL IN INSURING THE PERFORMANCE AND SAFETY OF EARTH DAMS. SUCH UNDERGROUND ANOMALIES ARE PARTICULARLY UNDESIRABLE IN THE EARTH DAMS AND DIKES THAT CONTAIN HAZARDOUS MATERIALS SINCE THESE RELATIVELY SMALL EMBANKMENTS ARE GENERALLY NOT ENGINEERED OR CONSTRUCTED IN A RIGOROUS AND PROFESSIONAL MANNER. ONE POSSIBLE TECHNIQUE FOR DETECTING AND MONITORING SUCH FAULTS AND WEAK AREAS IS THE USE OF MICROWAVES. BY BEAMING CONTINUOUS OR PULSED MICROWAVES AT THE DIKE AND RECORDING THE RETURN SIGNAL AS IT IS REFLECTED FROM THE ANOMALY, THE LOCATION, TYPE AND DEPTH OF FAULTS CAN BE DETERMINED. A LITERATURE SEARCH (TECHNICAL, EQUIPMENT, LEGAL AND SAFETY) WILL BE UNDERTAKEN AND A NUMBER OF LABORATORY EXPERIMENTS WILL BE PERFORMED TO ASSESS THE PRACTICALITY OF USING MICROWAVES FOR THE NON-DESTRUCTIVE ASSESSMENT OF DIKE STABILITY. BASIC SOIL PROPERTIES SUCH AS DIELECTRIC CONSTANT, CONDUCTIVITY, ATTENUATION, PHASE SHIFT, AND VELOCITY WILL ALSO BE DETERMINED. THE FINAL RESULT OF THIS PROJECT WILL BE THE DETAILED SPECIFICATION FOR AN INEXPENSIVE, MOBILE, MICROWAVE UNIT (WITH KNOWN LIMITATIONS) TO DETERMINE UNDERGROUND WATER, IRREGULARITIES, AND DISCONTINUITIES IN SMALL EARTHEN DIKES.

*PROJECT: 001798-AN INVESTIGATION OF THE REACTIONS OF AROMATIC HYDROCARBONS IN PHOTOCHEMICAL AIR POLLUTION

TASK =GC05 -000296 **EPA=R804764-03 ** (GRANT)
STARTING/ COMPLETION DATE : 09/76 - 04/81 : FY80

EPA OFFICER.: MC DODGE — EPA/ESRL - RTP — FTS-8-629-2374
INVESTIGATOR.: RJ O'BRIEN — PORTLAND STATE UNIV — ARTS & SCI/CHEM DEPT
MILESTONES...: 04/81 -FINAL REPORT
PROGRAM ID...: (PE-C05) TRANS. AND FATE - AIR
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: PRODUCT YIELDS DETERMINED FOR BENZALDEHYDE. O-CREOSOL. NITROTOLUENE AND BENZYLNITRATE.
ORDIS CODES..: RECN-001798 — SSIE-GMA 3864 3 — EPA -R804764-03 — ORD -RG10B30-1080
LABN-G603A-AC-026 — PE -C05
PROJ STATUS..: ACTIVE -MULTIYEAR — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- 06-28-80
CATEGORY-RESEARCH — ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS STUDY IS TO IDENTIFY THE INTERMEDIATE AND FINAL PRODUCTS FORMED WHEN AROMATIC HYDROCARBONS ARE IRRADIATED WITH OXIDES OF NITROGEN UNDER SIMULATED ATMOSPHERIC CONDITIONS. APPROACH: REACTIONS OF SEVERAL IMPORTANT AROMATIC CONSTITUENTS OF GASOLINE UNDER PHOTOCHEMICAL SMOG CONDITIONS WILL BE STUDIED. THESE HYDROCARBONS INCLUDE BENZENE. TOLUENE. XYLENE. AND MESITYLENE. REACTION PRODUCTS WILL BE IDENTIFIED AND QUANTIFIED. A COMPUTER MODEL OF THE REACTIONS OF TOLUENE WILL BE DEVELOPED AND VALIDATED AGAINST EXPERIMENTAL DATA. THE GOAL OF THE MODEL WILL BE TO EXPLAIN THE DECOMPOSITION OF TOLUENE UNDER ATMOSPHERIC CONDITIONS. AND TO EVALUATE ITS CONTRIBUTION TO PHOTOCHEMICAL OXIDANT PRODUCTION IN URBAN ATMOSPHERES.

*PROJECT: 001454-TEST AND EVALUATION OF A COAL GASIFIER-GAS CLEANING FACILITY

TASK =F825Q-791520 **EPA=R804811 ** (GRANT)
STARTING/ COMPLETION DATE : 10/76 - 09/81 : FY79

EPA OFFICER.: RA MCALLISTER — EPA/IERL - RTP — 919-541-2160
INVESTIGATOR.: JK FERRELL — NORTH CAROLINA STATE UNIV — RALEIGH — NC 27607
MILESTONES...: 10/78 -FACILITY TURNED OVER TO NORTH CAROLINA STATE FOR TESTS
11/78 -GASIFIER AND ACID GAS REMOVAL MODELS COMPLETE
05/79 -TESTS WITH COKE COMPLETE
11/79 -TESTS OF ACID GAS REMOVAL FROM SYNGAS COMPLETE
05/80 -METHANOL SOLVENT TESTS COMPLETE
11/80 -POTASSIUM CARBONATE TESTS COMPLETE
05/81 -DMPEG TESTS COMPLETE
11/81 -COMPARISONS MADE AMONG ACID GAS REMOVAL ALTERNATIVES
PROGRAM ID...: (PE-825) FUEL PROCESSING ,PREPARATION ADV ÇOMBUSTION
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-02 CLEAN AIR ACT
10-13 SOLID WASTE DISPOSAL ACT
CURR. RESULTS: PLANNED EXPERIMENTAL PROGRAM ON WESTERN KY NO. 11 CHAR IS COMPLETE SEVERA; 15 HOUR RUNS USING THE ENTIRE INTEGRARED SYSTEM HAVE BEEN MADE WITH THE FACILITY OPERATING IN A HIGHLY SATISFACTORY MANNER
ORDIS CODES..: RECN-001454 — SSIE-GMA 4969 1 — EPA -R804811 — ORD -RF10B30-1079
PE -825
PROJ STATUS..: ACTIVE -MULTIYEAR — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- 06-28-80
CATEGORY-RESEARCH — ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DETERMINE THE PERFORMANCE CHARACTERISTICS OF A BENCH SCALE COAL GASIFIER-GAS CLEANING FACILITY, ESPECIALLY ENVIRONMENTAL CHARACTERISTICS. TEST EFFICIENCY OF ACID GAS REMOVAL. IDENTIFY AND TRACE ORIGIN OF POLLUTANTS. IDENTIFY OPTIMUM OPERATING CONDITIONS.

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*PROJECT: 004864-MODELING TRANSPORT AND BEHAVIOR OF PESTICIDES AND OTHER TOXIC ORGANIC
          MATERIALS IN AQUATIC ENVIRONMENTS
           TASK =KC28 -000310 **EPA=R804820      ** (GRANT)
           STARTING/ COMPLETION DATE : 08/76 - 03/81 :   FY80
EPA  OFFICER.: LA BURNS                 EPA/ERL - ATHENS             FTS-8-250-3148
INVESTIGATOR.: RA PARK                  RENSSELAER POLY INST         CNTR FOR ECOL. MODELING
MILESTONES...: 08/77 -ANN. RPT. #1 - FORMULATION OF PROCESS EQUATIONS
               05/78 -LEUNG-RPIMS THESIS - MODELING BIOACCUMULATION IN FISHES
               08/78 -ANN. RPT. #2 - REVISED PROCESS EQUATIONS
               12/78 -COUPLING OF 'PEST' TO ECOSYSTEM MODEL 'CLEANER'
               08/79 -USER MANUAL AND COMPLETED PROGRAM FOR TOXICANT BEHAVIOR
               09/80 -PRELIMINARY REPORT ON TESTING OF EXAMS MODEL USING EXISTING FIELD DATA
               03/81 -FINAL REPORT ON TESTING
PROGRAM ID...: (PE-C28 )          TRANS. AND FATE  - WATER QUALITY
FINAL OUTPUT.: VALIDATED COMPUTER MODEL
MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
               30-99     COLOGY
CURR. RESULTS: DRAFT OF USER'S MANUAL AND PEST CODE RECEIVED
               FOR REVIEW.
ORDIS CODES..: RECN-004864       SSIE-GMA  5839 1      EPA -R804820         ORD -RK10B30-5080
               LABN-K760C-310    PE  -C28
PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED       ENTERED - UNKNOWN    UPDATED-  06-28-80
               CATEGORY-RESEARCH    ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: FORMULATION, COMPUTER IMPLEMENTATION, AND TESTING OF A DETAILED, TIME-VARYING MODEL OF
                THE BEHAVIOR OF ORGANIC TOXICANTS IN AQUATIC ECOSYSTEMS. EMPHASIS PLACED ON GENERATION OF MAXIMUM
                FEASIBLE PHYSICAL AND BIOLOGICAL DETAIL, TO GIVE BROAD APPLICABILITY AND DISCRIMINATION AMONG MANY
                POSSIBLE TARGET ORGANISMS. APPROACH: FUNCTIONAL DESCRIPTIONS OF THE PROCESSES AFFECTING TOXICANT
                BEHAVIOR ARE GENERATED FROM LITERATURE INFORMATION, CORROBORATED AND/OR MODIFIED VIA BENCH-SCALE
                LABORATORY STUDIES, AND LINKED TO AN EXISTING AQUATIC ECOSYSTEM MODEL ('CLEANER'). THIS MODEL
                ('PEST') AND A COARSE-RESOLUTION STEADY-STATE MODEL (AN 'EXAMS' MODEL) WILL BE VALIDATED AGAINST
                THE RESULTS OF FIELD STUDIES CONDUCTED UNDER OTHER AUSPICES.
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*PROJECT: 000489-PYROLYSIS OF AGRICULTURAL RESIDUES AND FEEDLOT WASTES IN A REACTIVE
                 STEAM ATMOSPHERE
                   TASK =B624B-000538 **EPA=R804836-02  ** (GRANT)
                   STARTING/ COMPLETION DATE : 11/76 - 03/79 :   FY79
  EPA  OFFICER.: WW LIBERICK              EPA/IERL - CINC
  INVESTIGATOR.: MJ ANTAL                 PRINCETON UNIV                     AEROSPACE DEPT
  MILESTONES...: 12/77 -INTERIM REPORT
                 12/78 -DRAFT FINAL REPORT
                 03/79 -FINAL REPORT
  PROGRAM ID...: (PE-624 )          CONSERVATION & UTIL. TECHNOLOGY ASSESSMENT- ENERGY
  FINAL OUTPUT.: RESULTS WILL FACILITATE DESIGN OF CONTINUOUS,SMALL-
                 SCALE CHEMICAL REACTOR FOR WASTE GASIFICATION.
  MANDATE......: 30-99     CHEMICAL ENGINEERING
  CURR. RESULTS: INTERIM REPORT ON RESULTS.
  ORDIS CODES..: RECN-000489          SSIE-GMA  5092 1      EPA -R804836-02       ORD -RB10B30-5079
                 PE  -624
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: INVESTIGATE BASIC KINETICS OF THE PYROLYSIS OF WASTES. APPROACH: THROUGH BENCH-SCALE
                  EXPERIMENTS COLLECT DATA TO IDENTIFY AND MATHEMATICALLY MODEL PYROLYSIS KINETIC UTILIZING VARIOUS
                  ORGANIC WASTES AS FEEDSTOCKS.

*PROJECT: 005259-DETECTION OF MUTAGENIC/CARCINOGENIC ALTERATION IN FISH AND ITS
                 APPLICATION TO HUMAN HEALTH
                   TASK =N831 -000011 **EPA=R804866     ** (GRANT)
                   STARTING/ COMPLETION DATE : 01/77 - 09/79 :   FY79
  EPA  OFFICER.: GE GLASS                 EPA/ERL - DULUTH                   FTS 8-783-9573
  INVESTIGATOR.: DE HINTON                UNIV OF MARYLAND                   DEPT OF MED
                 BF TRUMP                 UNIV OF MARYLAND                   DEPT OF MED
  PROGRAM ID...: (PE-831 )          EFFECTS OF ENERGY REL POLLUTANTS
  MANDATE......: 30-99
  CURR. RESULTS: DRAFT FINAL REPORT SUBMITTED AND UNDER REVIEW.
  ORDIS CODES..: RECN-005259          SSIE-GMA  3444 2      EPA -R804866          ORD -RN10B30-3079
                 PE  -831
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - UNKNOWN     UPDATED-  OCT-DEC 79
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DEVELOP AND TEST IN VITRO BIOASSAY METHODS TO DETECT MUTAGENIC AND CARCINOGENIC
                  PROPERTIES OF AQUATIC POLLUTANTS IN FISH. APPROACH: THE APPROACH WILL INCLUDE ACTIVATION OF
                  PROCARCINOGENS WITH MICROSOMAL ENZYMES OF FISH, RAT AND MAN. MUTAGENICITY WILL BE TESTED USING
                  BACTERIAL STRAINS. CARCINOGEN BINDING STUDIES WILL BE PERFORMED IN CULTURED CELL LINES FROM FISH,
                  RAT AND MAN. FINALLY IN VIVO TESTING IN FISH AND RAT WILL BE DONE. THE RESEARCH IS INTENDED TO LEAD
                  TO IMPROVED METHODOLOGY FOR DETECTION OF WATER-BORNE CARCINOGENS.
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*PROJECT: C00784-PREVENTION OF FORMATION AND/OR REMOVAL OF HALOGENATED ORGANICS USING
          CHLORINE DIOXIDE AND GRANULAR CARBON
            TASK =CC61 -01T043 **EPA=R804902-01  ** (GRANT)
            STARTING/ COMPLETION DATE : 11/76 - 03/81 :   FY80
 EPA  OFFICER.: B  LYKINS               EPA/MERL - CINC               513-684-7460
 INVESTIGATOR.: DB MILLS                EVANSVILLE CITY GOVERNMENT    EVANSVILLE          IN 47740
                M  GRIESE               EVANSVILLE CITY GOVERNMENT    EVANSVILLE          IN 47740
 PROGRAM ID...: (PE-C61 )         DRINK WATER TREATMENT & GROUND WATER PROT
 MANDATE......: 10-09     REORGANIZATION PLAN # 3
                10-03     TOXIC SUBSTANCES CONTROL ACT
                10-05     RESOURCE CONSERVATION AND RECOVERY ACT
 CURR. RESULTS: PHASE I COMPLETED WITH PHASE II STARTING SHORTLY.
 ORDIS CODES..: RECN-000784        SSIE-GMA  3597 3      EPA -R804902-01       ORD -RC10B30-1080
                LABN-C614A-0059    PE  -C61
 PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH  ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: A 100 GPM PILOT PLANT WILL BE USED TO EVALUATE VARIOUS TREATMENT SCHEMES USING CHLORINE AND CHLORINE DIOXIDE DISINFECTION TO COMPARE RESULTANT TRIHALOMETHANE AND OTHER ORGANIC BY-PRODUCT FORMATION. REMOVAL EFFICIENCIES BY GRANULAR ACTIVATED CARBON CONTACTORS OF ORGANIC COMPOUNDS EXISTING IN THE RAW WATER SUPPLY OR FORMED DURING DISINFECTION WILL ALSO BE EVALUATED. APPROACH: THE PROJECT IS DIVIDED INTO TWO PHASES. PHASE 1 (OPTIMIZATION PHASE) CONSISTS OF FOUR SHORT-TERM (2-3 WK) RUNS USING EITHER CHLORINE OR CHLORINE DIOXIDE DISINFECTION IN CONJUNCTION WITH GRANULAR ACTIVATED CARBON TO SELECT A MODE OF OPERATION FOR LONG-TERM (21 MONTH) EVALUATION. PHASE 2 (OPERATING PHASE) WILL EVALUATE CHLORINE DIOXIDE USING VIRGIN AND SUBSEQUENT REGENERATED GRANULAR ACTIVATED CARBON.

*PROJECT: 001470-ASSESSMENT AND CONTROL OF WASTEWATER CONTAMINANTS ORIGINATING FROM THE PRODUCTION OF SYNTHETIC FUELS FROM COAL
TASK =F825Q-791510 **EPA=R804917 ** (GRANT)
STARTING/ COMPLETION DATE : 11/76 - 10/81 : FY79

EPA OFFICER.: RA MCALLISTER EPA/IERL - RTP
INVESTIGATOR.: PC SINGER UNIV OF NORTH CAROLINA 919-541-2160 DEPT OF ENV SCI & ENGIN
MILESTONES...: 01/78 -LITERATURE REVIEW COMPLETED
06/78 -SYNTHETIC WASTEWATER TREATED BY ACTUATED SLUDGE
12/78 -PHYSICAL/CHEMICAL PRETREATMENT OPTIMIZED
06/79 -COMPONENT BIODEGRADABILITY DETERMINED
12/79 -PRELIMINARY BIOASSAY RESULTS AVAILABLE
06/80 -COMPOSITE BIODEGRADABILITY DETERMINED
12/80 -ACTUAL WASTEWATER TREATED BY ACTIVATED SLUDGE
09/81 -TREATMENT SCHEMES TESTED ON ACTUAL WASTEWATER
11/81 -DESIGN CRITERIA RECOMMENDED
PROGRAM ID...: (PE-825) FUEL PROCESSING ,PREPARATION ADV COMBUSTION
MANDATE......: 20-11 DAA FOR WATER PLANNING AND STANDARDS
ORDIS CODES..: RECN-001470 SSIE-GMA 4821 2 EPA -R804917 ORD -RF10B30-2079
PE -825
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN
CATEGORY-RESEARCH ACCESS-PUBLIC UPDATED- OCT-DEC 79
ABSTRACT.....: OBJECTIVE: DETERMINE THE ENVIRONMENTAL IMPACT OF WASTEWATER EFFLUENTS ORIGINATING FROM THE PRODUCTION OF SYNTHETIC FUELS FROM COALS; EVALUATE BY BENCH AND LABORATORY TESTS ALTERNATE WASTEWATER TECHNOLOGIES FOR CONTROL OF THESE EFFLUENTS. APPROACH: OBTAIN DATA TO IDENTIFY POTENTIAL EFFLUENT PROBLEMS AND TO GUIDE CONTROL PROGRAM PROCESS DEVELOPMENTS.

*PROJECT: 005394-A NUMERICAL INVESTIGATION ON THE ROLE OF VARIOUS HALOCARBON REACTANTS ON OZONE
TASK =GC1V -000350 **EPA=R804921 ** (GRANT)
STARTING/ COMPLETION DATE : 11/79 - 11/80 : FY80

EPA OFFICER.: MC DODGE EPA/ESRL - RTP
INVESTIGATOR.: PJ CRUTZEN COLORADO STATE UNIV FTS 8-629-2374 SOC DEPT
MILESTONES...: 05/81 -FINAL REPORT
PROGRAM ID...: (PE-C1V) TRANSPORT AND FATE - TOXICS
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: PHOTOCHEMICAL MODEL DEVELOPED TO CALCULATE DISTRIBUTION OF OH RADICALS IN ENVIRONMENT AND BETTER UNDERSTANDING OF GLOBAL BUDGET OF CO WAS OBTAINED THROUGH MODELING.
ORDIS CODES..: RECN-005394 SSIE-GMA 6292 1 EPA -R804921 ORD -RG10B30-1080
LABN-G603A-AF-008 PE -C1V
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN
CATEGORY-RESEARCH ACCESS-PUBLIC UPDATED- 06-28-80
ABSTRACT.....: OBJECTIVE: THE OVERALL OBJECTIVE IS TO OBTAIN AN UNDERSTANDING OF THE IMPACT OF HALOGENATED COMPOUNDS, ESPECIALLY METHYLCHLOROFORM, ON THE ENVIRONMENT. APPROACH: A TWO-DIMENSIONAL PHOTOCHEMICAL MODEL EXTENDING FROM THE GROUND TO 55 KM WILL BE USED TO CALCULATE THE IMPACT OF VARIOUS ANTHROPOGENIC EMISSIONS ON THE TROPOSPHERE AND STRATOSPHERE.

*PROJECT: 001900-A NUMERICAL STUDY OF HALOCARBON CHEMICAL REACTION ON STRATOSPHERIC & TROPOSPHERIC OZONE & OTHER PHOTOCHEMICAL PROCESSES (ABBREV)
TASK =G603A-AI-006 **EPA=R804921-02 ** (GRANT)
STARTING/ COMPLETION DATE : 11/76 - 10/78 : FY78

EPA OFFICER.: PL HANST — EPA/ESRL - RTP — FTS 8-629-2998
INVESTIGATOR.: PJ CRUTZEN — COLORADO STATE UNIV — AGRIC ENG DEPT
J FISHMAN — COLORADO STATE UNIV — AGRIC ENG DEPT
RB CHATFIELD — COLORADO STATE UNIV — AGRIC ENG DEPT
MILESTONES...: 10/81 -FINAL REPORT
PROGRAM ID...: (PE-603) TRANS. AND FATE OF POLLUTANTS -AIR
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-001900 SSIE-GMA 3443 1 EPA -R804921-02 ORD -RG10B30-1078
LABN-G603A-AF-08 PE -603
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: THE PURPOSE OF THIS RESEARCH IS TO OBTAIN AN UNDERSTANDING OF THE MODIFICATION OF THE ATMOSPHERE CAUSED BY THE RELEASE OF HALOGENATED CHEMICALS. TO ACCOMPLISH THIS GOAL, NUMERICAL MODELS OF THE ATMOSPHERE HAVE BEEN AND WILL BE FURTHER DEVELOPED WHICH ACCURATELY DESCRIBE THE PHOTOCHEMICAL AND PHYSICAL PROCESSES OCCURRING IN THE ATMOSPHERE. RESEARCH CONDUCTED DURING THE FIRST YEAR HAS INDICATED THAT THE CLEAN TROPOSPHERE MAY NOT BE AS EFFICIENT A SCAVENGER OF HALOCARBONS AS PREVIOUSLY BELIEVED. AN UNDERSTANDING OF THE ROLE OF THE TROPOSPHERE AS A REMOVAL MECHANISM FOR THESE HALOGENATED COMPOUNDS CAN BE BETTER ACHIEVED IF A GOOD KNOWLEDGE OF THE TROPOSPHERIC CARBON MONOXIDE BUDGET IS OBTAINED. THUS, ALTHOUGH THE CO BUDGET IS DISCUSSED IN THE FIRST YEAR'S RESEARCH RESULTS, THE SECOND YEAR'S RESEARCH EFFORTS WILL CONCENTRATE ON MINIMIZING THE UNCERTAINTIES OF THIS BUDGET DUE TO SOIL ABSORPTION AND RELEASE AND NON-METHANE HYDROCARBON OXIDATION. THE OTHER MAJOR FACET OF THE SECOND YEAR'S RESEARCH WILL BE TO HAVE A TWO-DIMENSIONAL, TIME-DEPENDENT, GLOBAL SCALE, PHOTOCHEMICAL MODEL (INCLUDING CHLOROCARBONS) OF THE TROPOSPHERE AND STRATOSPHERE OPERATIONAL BY THE END OF THE SECOND YEAR OF THE PROJECT.

*PROJECT: 006113-SIMS THREE-YEAR STUDY ON STATISTICS AND ENVIRONMENTAL FACTORS IN HEALTH

TASK =H816 -914300 **EPA=R804932 ** (GRANT)
STARTING/ COMPLETION DATE : 10/76 - 10/80 : FY79

EPA OFFICER.: WC NELSON — EPA/HERL - RTP — FTS 8-629-2330
INVESTIGATOR.: UNKNOWN — SIAM INST — PHILADELPHIA PA 19103
MILESTONES...: 09/77 -AWARD OF SECOND YEAR GRANT
09/78 -AWARD OF THIRD YEAR GRANT
10/80 -FINAL REPORT
PROGRAM ID...: (PE-816) HEALTH EFFECTS- CRITERIA POLLUTANTS - AIR
MANDATE......: 20-81 AA FOR RESEARCH AND DEVELOPMENT
ORDIS CODES...: RECN-006113 SSIE-HZ 799143 EPA -R804932 ORD -RH10B30-2079
LABN-H816 -914300 PE -816
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: SIAM INSTITUTE FOR MATHEMATICS AND SOCIETY ¢SIMS! IS DIRECTING THE STATISTICAL RESEARCH PERSONNEL AT COLUMBIA AND STANFORD UNIVERSITIES. THE INVESTIGATORS ARE DEVELOPING MORE SOPHISTICATED TECHNIOUE FOR THE ANALYSIS OF ENVIRONMENTAL AND HEALTH DATA. AT STANFORD WONG HAS INVESTIGATED THE DESIGNS FOR LOW DOSE EXTRAPOLATION OF CARCINOGENIC DATA. SHE HAS COMPARED SEVERAL MODELS INCLUDING THE K-HIT MODEL TO ESTIMATE A SAFE DOSE AND THE SHAPE OF THE LOW DOSE RESPONSE CURVE. WHITTEMORE HAS INVESTIGATED FEASIBILITY OF INITIATING HEALTH STUDY OF PERSONS EXPOSED TO CHEMICAL SOLVENTS FROM ELECTRONICS INDUSTRY.

*PROJECT: 006340-SIMS THREE-YEAR STUDY ON STATISTICS AND ENVIRONMENTAL FACTORS IN HEALTH

TASK =HC02 -914300 **EPA=R804932 ** (GRANT)
STARTING/ COMPLETION DATE : 10/76 - 10/80 : FY80

EPA OFFICER.: WC NELSON EPA/HERL - RTP FTS 8-629-2330
INVESTIGATOR.: THOMSEN D SIAM INST PHILADELPHIA PA 19103
MILESTONES...: 09/77 -AWARD OF SECOND YEAR GRANT
09/78 -AWARD OF THIRD YEAR GRANT
10/80 -FINAL REPORT
PROGRAM ID...: (PE-C02) HEALTH EFFECTS- CRITERIA POLLUTANTS -AIR
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-006340 SSIE-HZ 809143 EPA -R804932 ORD -RH10B30-1080
PE -C02
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: SIAM INSTITUTE FOR MATHEMATICS AND SOCIETY ¢SIMS! IS DIRECTING THE STATISTICAL RESEARCH PERSONNEL AT COLUMBIA AND STANFORD UNIVERSITIES. THE INVESTIGATORS ARE DEVELOPING MORE SOPHISTICATED TECHNIQUE FOR THE ANALYSIS OF ENVIRONMENTAL AND HEALTH DATA. WHITTEMORE HAS DEVELOPED A MODEL FOR THE COMBINED EFFECTS OF CIGARETTE SMOKE AND ASBESTOS EXPOSURE ON CELLULAR ATYPIA IN SPUTUM. A STATISTICAL PROGRAM IS BEING WRITTEN FOR THE APPLICATION OF THE MODEL. THIS RESEARCH WILL ELUCIDATE THE ROLE OF BOTH FACTORS IN THE DEVELOPMENT OF LUNG CANCER. SHE HAS ALSO ADDRESSED THE PROBLEM OF ESTIMATING HUMAN CANCER RISK AT LOW DOSES OF ENVIRONMENTAL CARCINOGENS IN PARTICULAR THE SENSITIVITY OF RISK ESTIMATES TO IMPLICIT ASSUMPTIONS IN THE MATHEMATICAL MODEL PREPARING A SURVEY ARTICLE ON AIR POLLUTION AND HEALTH FOR THE ANNUAL REVIEW OF PUBLIC HEALTH. STEELE COMPLETED SIMS WORKING PAPER #14 ENTITLED - "RED FLAGS ON THE HOUSTON STUDY." THIS WAS A REVIEW REQUESTED BY EPA OF THE "STUDY OF HEALTH-RELATED RESPONSES TO AIR POLLUTION OF PERSONS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN HOUSTON - TEXAS." SWITZER HAS BEEN INVESTIGATING THE PROBLEM OF AREAL MAPPING USING REMOTELY SENSED OBSERVATIONS. THE USUAL DISCRIMINANT ANALYSIS TECHNIQUES DO NOT TAKE INTO ACCOUNT SPATIAL CONTINUITY. FOO HAS STUDIED THE HOURLY AND DAILY VARIATIONS OF OZONE CONCENTRATIONS. HER STATISTICAL MODEL WAS USED TO ESTIMATE THE FREQUENCY DISTRIBUTION OF THE DURATION OF ELEVATED CONCENTRATIONS - AN IMPORTANT QUESTION FOR EXPOSURE MODELING IN EPIDEMIOLOGICAL STUDIES AND IN THE SETTING OF STANDARDS. ONE SHOULD BE ABLE TO SEE HOW THIS DURATION DISTRIBUTION IS AFFECTED BY CHANGES IN MEAN LEVELS. GALFOND HAS EXAMINED THE PROBLEM OF ESTIMATING WAITING TIMES BETWEEN POLLUTION EPISODES. WITH COMMONLY USED EXTREME VALUE MODELS SUCH WAITING TIME ESTIMATES CAN BE VERY UNSTABLE STATISTICALLY AS WELL AS NOTICEABLY BIASED UNLESS CARE IS TAKEN IN THE ESTIMATION OF THE MODEL PARAMETERS.

*PROJECT: 005017-CHAMBERS WORKS WASTEWATER TREATMENT PLANT - REMOVAL OF ORGANIC AND ORGANO-NITROGEN COMPOUNDS FROM WASTEWATER
TASK =L610B-000047 **EPA=S804943-03 ** (GRANT)
STARTING/ COMPLETION DATE : 11/76 - 11/79 : FY79 '

EPA OFFICER.: JE MATTHEWS EPA/ERL - ADA FTS 8-743-2233
INVESTIGATOR.: HW HEATH DU PONT DE NEMOURS & CO ORGANIC CHEMS
MILESTONES...: 11/76 -BEGAN STARTUP OF "PACT" SYSTEM
03/77 -"PACT" SYSTEM ON LINE
09/77 -REPORT ON STARTUP OF "PACT" SYSTEM
11/79 -COMPLETE PROJECT REPORT ON OPERATION OF PACT SYSTEM
PROGRAM ID...: (PE-610) INDUSTRIAL PROC. - WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: WORK ON PROJECT HAS BEEN COMPLETED. DRAFT OF FINAL REPORT BEING PREPARED BY GRANTEE.
ORDIS CODES..: RECN-005017 SSIE-GMA 6056 EPA -S804943-03 ORD -RL10B10-1079
PE -610
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE OBJECTIVE OF THIS PROJECT IS TO OBTAIN ACTUAL OPERATING AND COST DATA FROM A LARGE SCALE INDUSTRIAL APPLICATION OF "PACT" TECHNOLOGY FOR SECONDARY/TERTIARY TREATMENT OF WASTEWATER. DATA WILL BE OBTAINED FROM A $45,000.000 WASTEWATER TREATMENT PLANT AT THE DUPONT CHAMBERS WORKS IN DEEPWATER, NJ. THE PLANT TREATS 26.000 GPM OF HIGHLY COLORED INDUSTRIAL WASTEWATER CONTAINING APPROXIMATELY 180 PPM DISSOLVED ORGANIC CARBON (DOC). MUCH OF THE ORGANIC CARBON IS RESISTANT TO BIOLOGICAL DEGRADATION BY ORDINARY ACTIVATED SLUDGE PROCESSES. AS WITNESSED BY A BOD5 DOC RATIO OF ONLY 1.0. IN THIS "PACT" TREATMENT, NEUTRALIZED EFFLUENT FROM THE PRIMARY TREATMENT SECTION OF THE PLANT IS CONTACTED WITH 80 TO 200 PPM POWDERED ACTIVATED CARBON AND FED TO THREE, PARALLEL, 4,000.000 GALLON AERATORS CONTAINING RECYCLED ACTIVATED SLUDGE. THE "PACT" COMBINED CARBON AND BIOLOGICAL TREATMENT REMOVES 95% OF FEED BOD5 AND OVER 80% OF THE DOC. COLOR AND TOXIC SUBSTANCES IN THE WASTEWATER ARE REDUCED. THE QUALITY OF THE PLANT EFFLUENT PERMITS THE TOTAL DISCHARGE FROM THE CHAMBERS WORKS TO MEET BOD5, DOC, AND COLOR LIMITATIONS IN THE CHAMBERS WORKS NPDES PERMIT. THE TREATMENT PLANT ALSO INCLUDES A MULTIPLE HEARTH FURNACE FOR REGENERATION OF POWDERED ACTIVATED CABON FROM "PACT" SLUDGE. THIS IS THE FIRST LARGE SCALE USE OF THIS CARBON REGENERATION TECHNOLOGY. THE AERATOR/CLARIFIER SYSTEM HAS BEEN TREATING 28,000 GPM FLOW SINCE JUNE, 1977. FULL OPERATION OF THE REGENERATION FURNACE HAS BEEN DELAYED BY DESIGN PROBLEMS WITH BOTH THE SLUDGE CONVEYING SYSTEM, WHICH FEEDS THE FURNACE, AND THE FURNACE ITSELF. THE FURNACE WAS RESTARTED IN SEPTEMBER 1977. HOWEVER, BECAUSE OF FEED SYSTEM PROBLEMS ROUTINE OPERATION DIDN'T START UNTIL FEBRUARY, 1978. THE REGENERATION FURNACE IS CURRENTLY OPERATING AT 70% CAPACITY. THE QUALITY OF THE GENERATED CARBON IS ABOUT 70% OF VIRGIN CARBON. MODIFICATION OF THE REGENERATION SYSTEM IS CONTINUING.

39.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
SSIE
EPA R-804979-04-0

TITLE OF PROJECT Pollutants from Synthetic Fuels Production

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

F. O. Mixon, Principal Investigator
D. G. Nichols, Co-Principal Investigator
J. G. Cleland, Co-Principal Investigator
W. J. McMichael
C. M. Sparacino
D. E. Wagoner

NAME AND ADDRESS OF APPLICANT INSTITUTION

Research Triangle Institute
P. O. Box 12194
Research Triangle Park, NC 27709

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Various investigations have been proposed for the upcoming project year. These include a completion of the parametric test run sequence, the finalization of statistical analysis studies on the data from parametric and screening test operation, and a comparison of data from the RTI bench-scale gasifier with that currently available on pilot scale and commercial scale coal conversion facilities. Also of interest is thermal analysis system (TGA/DTA/DSC) experimentation in order to help elucidate mechanisms and chemical reaction rates for various pollutant species. These results are to be utilized in the reactor modeling and process analysis activities.

Major emphasis during the upcoming year will be on pollutant conversion and control. This will involve utilization of char bed units and other techniques for the chemical conversion and control of selected compounds and compound classes. Interest also exists in the study of pollutants associated with the conversion of synthesis gas resulting from coal gasification to synthetic liquid fuels. Analytical chemical studies and bioassay studies, where appropriate, will support the various individual tasks associated with this project.

*PROJECT: 006628-CHLORINATED HYDROCARBONS: INSECTICIDE VS CARCINOGENIC ACTION

TASK =HC86 -946900 **EPA=R805008 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 07/80 : FY80

EPA OFFICER.: S NESNOW EPA/HERL - RTP FTS 8-629-2693
INVESTIGATOR.: HART OHIO STATE UNIV COLUMBUS OH 43212
MILESTONES...: 12/77 -PRELIMINARY INSECT EVALUATION OF 15 AGENTS
03/78 -INITIAL UDS AND CYTOTOXICITY EXPERIMENTS
12/78 -MUTATION ANALYSIS IN V-79
12/78 -BINDING STUDIES IN V-79 VA-4
04/79 -BINDING STUDIES WITH 14-C ALDRIN
06/79 -BINDING & UDS STUDIES WITH DIHYDROALDRIN
03/80 -DETERMINE CRITICAL SITE OF ALDRIN/DIELDRIN BINDING
06/80 -COMPLETE BIOMAGNIFICATION STUDIES
PROGRAM ID...: (PE-C86) HEALTH EFFECTS - PESTICIDES
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
ORDIS CODES..: RECN-006628 SSIE-HZ 809469 EPA -R805008 ORD -RH10B30-1080
PE -C86
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: THE OBJECTIVES OF THIS RESEARCH ARE 1. THE IDENTIFICATION OF THE REACTIVE PORTION OF THE ALDRIN & DIELDRIN MOLECULES WHICH ARE RESPONSIBLE FOR THEIR CYTOTOXIC & MUTAGENIC ACTION ON MAMMALIAN CELLS: & 2. THE IDENTIFICATION & DEVELOPMENT OF NEW MOLECULAR FEATURES WHICH MAY RENDER THESE PESTICIDES NON-PERSISTENT & ECOLOGICALLY SAFE. ANALOGS AND METABOLITES OF THE HALOGENATED HYDROCARBONS ARE NOW AVAILABLE FOR TESTING IN THE HUMAN CELL AND INSECT SYSTEMS. SYNTHESIS OF RADIOACTIVE COMPOUNDS SUCH AS, OXYALDRIN, OXYDIELDRIN AND FLUORINATED DERIVATIVES ARE IN PROGRESS AND SHOULD ALLOW FURTHER ASSESSMENT OF THE RELATIONSHIP OF FUNCTIONAL GROUPS, UDS AND CYTOTOXICITY TO DNA BINDING. TABULATION OF RESULTS OF THE ANALOGS TESTED IN THE INSECTS AND MICROSOMAL ACTIVATION SYSTEM ARE PROVIDING INSIGHTS INTO THE METABOLISM OF CHLORINATED HYDROCARBONS. FUTURE STUDIES WILL LEAD TO THE IDENTITY AND QUANTIFYING OF THE MAJOR METABOLITES. STUDIES UNDERWAY IN THE CELL CULTURE SYSTEM SHOULD ALLOW US TO COMPARE AND DISTINGUISH THE BIOLOGICAL EFFECTS OF HALOGENATED HYDROCARBONS AND THE INSECT TOXICITY WITH THE TYPES AND QUANTITY OF METABOLITES PRODUCED.

·PROJECT: 006305-CHLORINATED HYDROCARBONS: INSECTICIDE VS CARCINOGENIC ACTION

TASK =H615 -946900 **EPA=R805008 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 07/80 : FY79

EPA OFFICER.: S NESNOW EPA/HERL - RTP FTS 8-629-2693
INVESTIGATOR.: UNKNOWN OHIO STATE UNIV COLUMBUS OH 43212

MILESTONES...:
12/77 -PRELIMINARY INSECT EVALUATION OF 15 AGENTS
03/78 -INITIAL UDS AND CYTOTOXICITY EXPERIMENTS
12/78 -MUTATION ANALYSIS IN V-79
12/78 -BINDING STUDIES IN V-79 VA-4
04/79 -BINDING STUDIES WITH 14-C ALDRIN
06/79 -BINDING & UDS STUDIES WITH DIHYDROALDRIN
03/80 -DETERMINE CRITICAL SITE OF ALDRIN/DIELDRIN BINDING
06/80 -COMPLETE BIOMAGNIFICATION STUDIES

PROGRAM ID...: (PE-615) HEALTH EFFECTS - PESTICIDES
MANDATE......: 20-34 DAA FOR PESTICIDE PROGRAMS
ORDIS CODES..: RECN-006305 SSIE-HZ 799469 EPA -R805008 ORD -RH10B30-2079
LABN-H615 -946900 PE -615
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE OBJECTIVES OF THIS RESEARCH ARE 1. THE IDENTIFICATION OF THE REACTIVE PORTION OF THE ALDRIN & DIELDRIN MOLECULES WHICH ARE RESPONSIBLE FOR THEIR CYTOTOXIC & MUTAGENIC ACTION ON MAMMALIAN CELLS; & 2. THE IDENTIFICATION & DEVELOPMENT OF NEW MOLECULAR FEATURES WHICH MAY RENDER THESE PESTICIDES NON-PERSISTENT & ECOLOGICALLY SAFE. THE SYNTHESIS OF ANALOGS AND METABOLITES OF HALOGENATED HYDROCARBONS AND PYRETHROIDS FOR TESTING IN THE HUMAN CELL AND INSECT SYSTEMS IS CONTINUING. SYNTHESIS OF RADIOACTIVE COMPOUNDS SUCH AS. OXYALDRIN. OXYDIELDRIN AND FLUORINATED DERIVATIVES SHOULD ALLOW FURTHER ASSESSMENT OF THE RELATIONSHIP OF FUNCTIONAL GROUPS. UDS AND CYTOTOXICITY TO DNA BINDING. ANALYSIS OF RESULTS OF THE ANALOGS TESTED TO DATE INDICATE A RELATIONSHIP OF THE AMOUNT OF UDS INDUCED TO THE EXTENT OF BINDING TO DNA. FURTHER STUDIES WITH OTHER ANALOGS OF VARYING ELECTROPHILICITY SHOULD ALLOW DISTINGUISHING BETWEEN BIOLOGICAL EFFECTS ON HUMAN CELLS AND INSECT TOXICITY.

*PROJECT: 002618-CHLORINATED HYDROCARBON INSECTICIDES VS. CARCINOGENIC ACTION

TASK =H615A-008542 **EPA=R805008 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 07/80 : FY78

EPA OFFICER.: S NESNOW EPA/HERL - RTP FTS 8-629-2693
INVESTIGATOR.: RW HART OHIO STATE UNIV COLL OF MED
N LEWIS OHIO STATE UNIV COLL OF MED

MILESTONES...: 12/77 -CHEMICAL SYNTHESIS OF 15 AGENTS
01/78 -PRELIMINARY INSECT EVALUATION
03/78 -PRELIMINARY BONDING EXPERIMENT
12/78 -MUTATION ANALYSIS

PROGRAM ID...: (PE-615) HEALTH EFFECTS- PESTICIDES

MANDATE.......: 10-06 FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
20-34 DAA FOR PESTICIDE PROGRAMS
30-99 CARCINOGENESIS

CURR. RESULTS: DIELDRIN ANALOGS (15) HAVE BEEN COMPLETED. INITIAL STUDIES ON PARENT INSECTICIDES COMPLETED IN INSECT TEST SYSTEMS.

ORDIS CODES..: RECN-002618 SSIE-GMA 5343 EPA -R805008 ORD -RH10B30-5078
PE -615

PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE LONG-TERM OBJECTIVE OF THIS PROJECT IS THE DETERMINATION OF THOSE STRUCTURAL CHARACTERISTICS RESPONSIBLE FOR THE DELETERIOUS VS. BENEFICIAL ACTION OF CHLORINATED PESTICIDES. THESE STUDIES WILL PERMIT THE DEVELOPMENT OF A MODEL SYSTEM FOR THE RATIONAL DESIGN, SYNTHESIS, AND DEVELOPMENT OF NONCARCINOGENIC, YET BIOLOGICALLY EFFECTIVE PESTICIDES. THE SPECIFIC CHEMICAL OBJECTIVES INCLUDE: A) THE SYNTHESIS OF RATIONALLY DESIGNED COMPOUNDS WITH SYSTEMATICALLY JUXTAPOSED FUNCTIONAL GROUPS. B) COMPOUNDS DEMONSTRATING DIFFERENTIAL BIOLOGICAL EFFECTS WILL BE SYNTHESIZED WITH RADIOLABELS TO DETERMINE THE EXTENT AND TYPE OF MACROMOLECULAR INTERACTION OF THESE WITH CELLULAR COMPONENTS. THE HALOGENATED PESTICIDES (ALDRIN AND DIELDRIN) AND THE ANALOGS SYNTHESIZED FOR THESE STUDIES WILL BE EVALUATED AT THE MOLECULAR LEVEL FOR THEIR ABILITY TO: A) BIND TO DNA; B) FORM SPECIFIC DN-P BOND(S); C) PRODUCE GENETIC DAMAGE; AND D) PRODUCE REPAIRABLE VS. NONREPAIRABLE GENETIC DAMAGE. THE CELLULAR EVALUATIONS WILL INCLUDE STUDIES ON: A) THE CYTOTOXIC, B) THE MUTAGENIC, C) THE CARCINOGENIC AND D) VIRAL SYNERGISTIC POTENTIAL OF THESE AGENTS IN OUR MAMMALIAN TEST SYSTEMS. IN ADDITION WE WILL EVALUATE AND ATTEMPT TO MODIFY THE RATE AND EXTENT OF ACTION FOR EACH OF THESE AGENTS AND CORRELATE THIS WITH THE LEVEL OF INDUCTION AND RATE OF REMOVAL OF SPECIFIC DN-P COMPLEX(ES). THE ECOLOGICAL CONSIDERATIONS WILL INCLUDE THE DETERMINATION OF PESTICIDAL EFFECTIVENESS AND BIOMAGNIFICATION POTENTIAL OF THESE HALOGENATED COMPOUNDS. DIELDRIN ANALOGS (15) HAVE BEEN SYNTHESIZED. TEN OTHER CHEMICAL AGENTS HAVE BEEN SYNTHESIZED OR OBTAINED TO ENHANCE THE DATA BASE. INITIAL STUDIES ON PARENT INSECTICIDES HAVE BEEN COMPLETED IN INSECT TEST SYSTEMS, INCLUDING ORAL AND TOPICAL TOXICITY USING HOUSE FLIES AND IMMERSION TESTS USING MOSQUITO LARVAE. PRESENT STUDIES UNDERWAY INCLUDE UNSCHEDULED DNA SYNTHESIS AND CYTOTOXICITY IN V-79 AND VA-4 MAMMALIAN CELL SYSTEMS. MUTATION ANALYSIS IN V-79 CELLS AND BINDING STUDIES IN V-79 AND VA-4 CELLS.

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*PROJECT: 004850-USE OF REMOTE SENSING TO DETERMINE THE HORIZONTAL DISTRIBUTION OF
          CHLOROPHYLL AND SURFACE CURRENTS IN LAS VEGAS BAY, LAKE MEAD
            TASK =J884A-000044 **EPA=R805045-01  ** (GRANT)
            STARTING/ COMPLETION DATE : 10/76 - 02/80 :   FY79
 EPA OFFICER.: M  BRISTOW             EPA/EMSL - LAS VEGAS          702-798-2272
 INVESTIGATOR.: J  DEACON             UNIV OF NEVADA                ARTS & LETTERS/BIOL DEPT
 MILESTONES...: 10/76 -DATA SUPPLIED DURING EACH EXPERIMENTAL PERIOD (APPROX. FOUR-MONTH
                02/80 -DELIVERY OF ALL IN SITU MEASUREMENT DATA
 PROGRAM ID...: (PE-884 )          MONITORING METHODS & SYSTEMS - WATER QUALITY
 FINAL OUTPUT.: DELIVERY OF ALL IN SITU MEASUREMENT DATA.
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                30-99     WATER CHEMISTRY
 CURR. RESULTS: A NUMBER OF FLIGHTS CONDUCTED OVER LAKE MEAD AND
                GOOD CORRELATIONS OBSERVED BETWEEN RESPECTIVE DATA BASES.
 ORDIS CODES..: RECN-004850          SSIE-GMA  5831        EPA -R805045-01       ORD -RJ10B30-5079
                PE  -884
 PROJ STATUS..: PROJECT-ACTIVE       INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: PROVIDE MEASUREMENTS OF CHLOROPHYLL CONCENTRATIONS IN SUPPORT OF AN EPA PROGRAM TO
                 DEVELOP A LASER FLUOROSENSOR METHOD FOR PERFORMING THE MEASUREMENTS FROM AN AIRBORNE PLATFORM.
                 APPROACH: MEASUREMENTS ARE MADE AND SAMPLES COLLECTED FROM BOAT AT PREMARKED LOCATIONS COINCIDENT
                 WITH AN OVERFLIGHT BY THE AIRCRAFT-BORNE REMOTE MONITOR. SAMPLES ARE ANALYZED AND COMPARED TO
                 RESULTS FROM THE REMOTE MONITOR.
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*PROJECT: 005271-METHODS DEVELOPMENT FOR ASSESSING TRADEOFFS IN ENVIRONMENTAL MANAGEMENT

                TASK =X775A-000003 **EPA=R805059-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 10/76 - 11/79 :   FY79
EPA  OFFICER.: A  CARLIN             EPA/OHR- DAA                202-755-0655
INVESTIGATOR.: DS BROOKSHIRE         UNIV OF WYOMING             LARAMIE          82070
               TD CROCKER            UNIV OF WYOMING             LARAMIE          82070
               W  SCHULZE            UNIV OF WYOMING             LARAMIE          82070
               S  BEN DAVID          UNIV OF NEW MEXICO          ALBURQUERQUE   NM87131
               A  KNEESE             UNIV OF NEW MEXICO          ALBURQUERQUE   NM87131
MILESTONES...: 03/79 -EPA ISSUED INTERIM REPORT
PROGRAM ID...: (PE-775 )          ANTICIPATORY  R & D
MANDATE......: 20-20     AA FOR AIR AND WASTE MANAGEMENT
               20-52     DAA FOR PLANNING AND EVALUATION
               20-R09    EPA REGION IX
               30-99     ECONOMICS
CURR. RESULTS: INTERIM REPORT ISSUED 3/29/79, WITH PRESS RELEASE.
ORDIS CODES..: RECN-005271       SSIE-GMA  6149       EPA -R805059-01      ORD -RX10B30-5079
               PE  -775
PROJ STATUS..: PROJECT-ACTIVE        INFO-ORIGINAL        ENTERED - UNKNOWN     UPDATED-  OCT-DEC 79
               CATEGORY-RESEARCH     ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO ADVANCE THE STATE-OF-THE-ART IN MEASURING, EVALUATING AND WEIGHING THE TRADEOFFS
                INHERENT IN ENVIRONMENTAL DECISION-MAKING BY: 1. FURTHER DEVELOPING THE TOOLS NEEDED TO MEASURE AND
                EVALUATE BENEFITS, 2. ADVANCING DECISION METHODS TO BE USED IN DISCRIMINATING AMONG ALTERNATIVES,
                3. DEFINING THE ROLE FOR RELEVANT COST AND BENEFIT INFORMATION IN DECISION-MAKING, AND 4.
                DETERMINING THE AREAS OF ENVIRONMENTAL RESEARCH WHICH COULD MOST EFFECTIVELY CONTRIBUTE TO IMPROVED
                DECISION METHODOLOGY. APPROACH: DEVELOP AND TEST METHODOLOGY TO USE ECONOMETRIC ANALYSES TO
                DETERMINE NATIONAL HUMAN HEALTH BENEFITS AND PROPERTY VALUE AND WILLINGNESS-TO-PAY STUDIES TO
                DETERMINE REGIONAL BENEFITS OF AIR POLLUTION CONTROL.
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*PROJECT: 001C90-WATER SOURCE AND CHARACTERISTICS AND MALIGNANCY RATES OF SELECTED SITES
IN SELECTED PARISHES IN LOUISIANA
TASK *D614 -029A00 **EPA*R805110-02 ** (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 08/79 : FY78

EPA OFFICER.: KP CANTOR EPA/HERL - CINC FTS 8-496-4947
INVESTIGATOR.: MS GOTTLIEB TULANE UNIV OF LOUISIANA SCH OF MED/EPIDEM DEPT
FJ MATHER TULANE UNIV OF LOUISIANA SCH OF MED/EPIDEM DEPT

MILESTONES...: 12/79 -REPORT ON BLADDER CANAL & WATER SUPPLIES
PROGRAM ID...: (PE-614) DRINKING WATER
MANDATE......: 10-13 SOLID WASTE DISPOSAL ACT
ORDIS CODES..: RECN-001090 SSIE-GMA 5398 EPA -R805110-02 ORD -RD10A30-1078
PE -614

PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: TO EXAMINE THE POSSIBLE RELATIONSHIP OF THE SOURCE OF DRINKING WATER IN SELECTED LOUISIANA PARISHES TO THE OCCURRENCE OF CANCER OF SITES WHICH APPEAR TO BE SIGNIFICANTLY ELEVATED AND PARTICULARLY FOR CANCER OF THE PANCREAS, STOMACH, BLADDER, LUNG AND COLON CANCER, EXCLUDING RECTUM. PARISHES HAVE BEEN SELECTED BY SOURCE OF DRINKING WATER AND OTHER ENVIRONMENTAL CHARACTERISTICS. TO DATE RELATED STUDIES HAVE PRIMARILY CONCERNED THEMSELVES WITH MORTALITY DATA. MORTALITY DATA DOES NOT DISTINGUISH BETWEEN INCIDENCE AND PREVALENCE. THIS IS PARTICULARLY CRITICAL WHEN LOOKING FOR ETIOLOGY OF CANCERS WITH LONG SURVIVAL FROM TIME OF DIAGNOSIS, I.E., BLADDER AND LARGE INTESTINE (COLON). IN THE FIRST PHASE MORTALITY RATES FOR THE SELECTED MALIGNANCIES WILL BE COMPARED FOR THREE TIME PERIODS FOR THE SELECTED PARISHES. THIS PROJECT WILL SYSTEMATICALLY USE MORTALITY DATA TO MEASURE INCIDENCE WHERE APPLICABLE (CANCER OF THE LUNG, PANCREAS AND STOMACH). ALSO, BY COMPARING SELECTED HOSPITAL DATA FOR CANCERS WITH SHORT SURVIVALS DETERMINE THE REPRESENTATIVENESS OF THE HOSPITAL DATA OF THE TOTAL MORTALITY AND DETERMINE THE USEFULNESS OF INCIDENCE DATA (DATE OF DIAGNOSIS) FROM THESE HOSPITALS FOR CANCERS OF THE LARGE INTESTINE AND BLADDER. THE NULL HYPOTHESIS IS THAT DRINKING WATER SOURCE HAS NOTHING TO DO WITH CANCER RATES. ORLEANS PARISH IS ONE OF THE PARISHES THAT WILL BE CONSIDERED. OTHER VARIABLES THAT WILL THEN BE EXAMINED TO LOOK AT DIFFERENCES IN RATES NOT ATTRIBUTABLE TO DRINKING WATER ARE THE PRESENCE OF PARTICULAR INDUSTRIES, AND THE PROXIMITY OF THE RESIDENCE OF THE CASES TO THE INDUSTRY, AS WELL AS PARTICULAR OCCUPATIONS. MORTALITY OR INCIDENCE RATES FOR THE SPECIFIC SUBGROUPS WILL BE CALCULATED AND COMPARED TO EXPECTED NUMBERS (EXPECTED DEATHS BASED ON AGE-TIME SPECIFIC DEATH RATES FOR LOUISIANA RESIDENTS, AND INCIDENCE RATES BASED ON THE NATIONAL CANCER INCIDENCE SURVEYS MOST APPROPRIATE TO THE PARTICULAR YEARS BEING CONSIDERED). STANDARDIZED RATIOS WILL BE CALCULATED IN ORDER TO COMPARE GROUPS AND SUB-GROUPS.

*PROJECT: 000939-HIGH-TEMPERATURE DEGRADATION CHARACTERISTICS OF HAZARDOUS ORGANIC WASTES
- A LABORATORY APPROACH
TASK =CC73 -S4T018 **EPA=R805117-01 ** (GRANT)
STARTING/ COMPLETION DATE : 06/77 - 12/80 : FY80

EPA OFFICER.: RA CARNES   EPA/MERL - CINC   FTS-8-684-7871
INVESTIGATOR.: DS DUVALL   UNIV OF DAYTON   RES INST
MILESTONES...: 06/79 -ANNUAL REPORT (PROGRESS)
06/80 -FINAL REPORT (DRAFT)
12/80 -PUBLISH FINAL REPORT
PROGRAM ID...: (PE-C73)   SOLID & HAZARDOUS WASTE
MANDATE.......: 10-03   TOXIC SUBSTANCES CONTROL ACT
10-05   RESOURCE CONSERVATION AND RECOVERY ACT
10-06   FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
20-14   DAA FOR SOLID WASTE
CURR. RESULTS: DURING PAST 2 YRS ACTIVE RESEARCH GRANTEE DEVELOPED VERY SOPHISTICATED LAB PROCEDURE FOR THERMAL DECOMPOSITION OF HAZARDOUS WASTES. THERMAL DECOMPOSITION CHARACTERISTICS AND DESTRUCTION REQUIREMENTS DETERMINED FOR KEPONE, MIREX, ENDRIN, PCB AND PBB. ENGINEERING REPORT RECEIVED PROJECT ON LINE DESIGN REPORT SUBMITTED BY GRANTEE ENTITLED "DESIGN FOR A THERMAL DECOMPOSITION ANALYTECAL SYSTEM " REPORT IN PUBLICATION CYCLE PRESENTLY.
ORDIS CODES..: RECN-000939   SSIE-GMA 3944 3   EPA -R805117-01   ORD -RC10B30-5080
LABN-C618A-7042   PE -C73
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: THE PRIME OBJECTIVE OF THIS STUDY IS TO DETERMINE THE THERMAL DESTRUCTION CHARACTERISTICS OF A WIDE ASSORTMENT OF PESTICIDES AND OTHER ORGANIC HAZARDOUS WASTE MATERIALS. APPROACH: THE OBJECTIVE WILL BE ACCOMPLISHED USING A SPECIALLY DESIGNED LABORATORY TEST SYSTEM CAPABLE OF DETERMINING DESTRUCTION-RESIDENCE TIME DATA FOR A MULTITUDE OF ORGANIC SAMPLES, WHILE SIMULTANEOUSLY ANALYZING THE COMPLETE SPECTRUM OF EVOLVED DECOMPOSITION PRODUCTS. THIS SYSTEM WILL BE CAPABLE OF "QUICK RESPONSE" GENERATION OF DATA; WILL OPERATE IN EITHER THE FLAME OR NONFLAME THERMAL DESTRUCTION MODE; AND WILL INCORPORATE A DEDICATED GC-MS FOR ANALYSIS OF EVOLVED PRODUCTS.

*PROJECT: 006119-METABOLISM OF CARBAMATE INSECTICIDES

TASK =H615 -948900 **EPA=R805143 ** (GRANT)
STARTING/ COMPLETION DATE : 06/77 - 05/82 : FY79

EPA OFFICER.: MD JACKSON EPA/HERL - RTP FTS 8-629-2755
INVESTIGATOR.: UNKNOWN UNIV OF KENTUCKY LEXINGTON KE 40506
MILESTONES...: 09/79 -PREGNANCY VS. CARBAMATE ESTER STUDIES
12/79 -FATE OF NITROSOCARBARYL IN THE GUINEA PIG STOMACH
12/79 -CARBAMATE TOXICITY VS. IN VIVO HYDROLYSIS
PROGRAM ID...: (PE-615) HEALTH EFFECTS - PESTICIDES
MANDATE......: 20-34 DAA FOR PESTICIDE PROGRAMS
ORDIS CODES..: RECN-006119 SSIE-HZ 799489 EPA -R805143 ORD -RH10B30-2079
LABN-H615 -948900 PE -615
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: TO DEFINE THE METABOLIC FATE OF CARBAMATE INSECTICIDES IN ANIMALS AND PLANTS AND TO EVALUATE THE SIGNIFICANCE OF CARBAMATE METABOLITES IN ANIMALS. CARBAMATE INSECTICIDES ARE OFTEN SAID TO UNDERGO N-CONJUGATION WITH SUGARS, BUT CONCLUSIVE EVIDENCE FOR THIS TYPE OF METABOLISM IS LACKING. TYPICALLY, RESEARCHERS SUGGEST N-CONJUGATE FORMATION WHEN ACID AND/OR ENZYME HYDROLYSIS FAIL TO YIELD THE ANTICIPATED AGLYCONE. RECOVERY OF THE PARENT CARBAMATE FOLLOWING ACID/ENZYME TREATMENT OF UNKNOWN POLAR METABOLITES IS FURTHER EVIDENCE THAT N-CONJUGATES ARE FORMED IN MAMMALIAN SYSTEMS. TO AID IN DETERMINING THE ROLE OF N-CONJUGATION IN CARBAMATE METABOLISM, WE HAVE TURNED TO NONCARBAMATE INSECTICIDES FOR THE BIOSYNTHESIS OF MODEL COMPOUNDS. SOUND ANALYTICAL DATA SUPORT THE FORMATION OF MEPROBAMATE-N-GLUCURONIDE AND AMOBARBITAL-N-GLUCOSIDE IN MAMMALS. WE HAVE CHEMICALLY SYNTHESIZED THE C-LABELED DRUGS, AND HAVE BIOSYNTHESIZED THE COMPOUNDS REPORTED TO BE THE N-CONJUGATES. AFTER CONFIRMATION OF THEIR IDENTITY, STUDIES WILL BE PERFORMED TO BETTER DETERMINE THOSE PARAMETERS BEST SUITED FOR EVALUATION OF N-CONJUGATION WITH THE CARBAMATE INSECTICIDES. IN VIVO ESTER HYDROLYSIS OF CARBARYL-CARBONYL-14C WAS COMPARED IN PREGNANT AND NON-PREGNANT RATS. NO SIGNIFICANT DIFFERENCE WAS NOTED IN THE ESTER CLEAVAGE OF CARBARYL BETWEEN THE TWO GROUPS OR IN THE PATTERNS OF RADIOCARBON EXCRETION IN THE URINE.

*PROJECT: 006346-METABOLISM OF CARBAMATE INSECTICIDES

TASK -HC86 -948900 **EPA=R805143 ** (GRANT)
STARTING/ COMPLETION DATE : 06/77 - 05/82 : FY80

EPA OFFICER.: MD JACKSON EPA/HERL - RTP FTS 8-629-2755
INVESTIGATOR.: DOROUGH UNIV OF KENTUCKY LEXINGTON KE 40506
MILESTONES...: 09/79 -PREGNANCY VS. CARBAMATE ESTER STUDIES
12/79 -FATE OF NITROSOCARBARYL IN THE GUINEA PIG STOMACH
12/79 -CARBAMATE TOXICITY VS. IN VIVO HYDROLYSIS
PROGRAM ID...: (PE-C86) HEALTH EFFECTS - PESTICIDES
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
ORDIS CODES..: RECN-006346 SSIE-HZ 809489 EPA -R805143 ORD -RH10B30-1080
PE -C86
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: TO DEFINE THE METABOLIC FATE OF CARBAMATE INSECTICIDES IN ANIMALS AND PLANTS AND TO EVALUATE THE SIGNIFICANCE OF CARBAMATE METABOLITES IN ANIMALS. STUDIES WITH RADIO LABELED CARBARYL AND NITROSOCARBARYL INDICATE THAT WHILE BOTH ARE RAPIDLY DEGRADED IN THE STOMACH THAT THE CARBARYL IS DEGRADED FASTER THAN NITROSOCARBARYL. GERBIL AND RAT STUDIES INDICATE THAT CARBAMATE POISONING IS NOT A FUNCTION OF HYDROLYSIS RATES IN DIFFERENT SPECIES. SINCE WE ESTABLISHED THAT NITROSOCARBARYL WAS FORMED IN THE STOMACH OF GUINEA PIGS FED CARBARYL AND SODIUM NITRITE, ATTEMPTS WERE MADE TO ASSESS THE STABILITY OF THE NITROSOCOMPOUND IN THE STOMACH. STUDIES WITH NITROSOCARBARYLNAPHTHYL14C AND NITROSOCARBARYL-N-METHYL-14C REVEALED THAT THE COMPOUND WAS RAPIDLY DEGRADED IN THE STOMACH, BUT THE RADIOCARBON REMAINING AFTER 30 MIN. WAS MUCH GREATER THAN WITH CARBARYL RADIOLABELED AT COMPARABLE POSITIONS ON THE MOLECULE. LESS THAN 10% OF THE CARBARYL DOSE REMAINED, WHILE 50% OF THE NITROSOCARBARYL EQUIVALENTS (PRIMARILY IN A WATER-SOLUBLE AND BOUND FORM) WERE RECOVERED. RADIOCARBON LOST FROM THE STOMACH WAS LOCATED IN THE ANIMAL CARCASS, CONFIRMING THAT CARBARYL WAS REMOVED FROM THE STOMACH TO A MUCH GREATER EXTENT THAN THE NITROSO DERIVATIVE. GERBILS ARE MUCH MORE EFFICIENT IN VIVO HYDROLYZERS OF CARBAMATES THAN ARE RATS, YET ACUTE ORAL TOXICITY EVALUATIONS SUGGESTED THAT THERE WAS LITTLE DIFFERENCE BETWEEN THE TWO SPECIES INSOFAR AS TOXICITY WAS CONCERNED (REPORTED EARLIER). RECENT SUB-ACUTE STUDIES (DAILY ORAL DOSES FOR UP TO 70 DAYS) SHOW THAT THE GERBIL IS INDEED MORE SUSCEPTIBLE TO CARBARYL AND CRONETON THAN IS THE RAT. WHILE CARBAMATE ESTER HYDROLYSIS IS A DETOXIFICATION REACTION, THE DATA CONTINUE TO DEMONSTRATE THAT SPECIES SUSCEPTIBILITY TO CARBAMATE POISONING IS NOT A FUNCTION OF HYDROLYSIS RATES.

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*PROJECT: 005013-A STUDY OF THE MECHANISM AND RATES OF VOLATILIZATION OF CONTAMINANTS
                 FROM WATER BODIES
                   TASK =KC61 -000206 **EPA=R805150      ** (GRANT)
                   STARTING/ COMPLETION DATE : 08/77 - 12/80 :    FY80
  EPA  OFFICER.: SW KARICKHOFF             EPA/ERL - ATHENS                    FTS-8-250-3593
  INVESTIGATOR.: D  MACKAY                 UNIV OF TORONTO                     DEPT OF CHEM ENGIN
  MILESTONES...: 12/77 -PUBLICATION ON LIQUID-PHASE CONTROLLED VOLATILIZATION RATES
                 12/78 -PUBLICATION ON METHOD OF MEASUREMENT OF HENRY'S LAW CONSTANTS
                 09/80 -PRED. EQUATIONS FOR VOLATILIZATION OF ORG. POLL. FROM NATURAL WATER
  PROGRAM ID...: (PE-C61 )         DRINK WATER TREATMENT & GROUND WATER PROT
  MANDATE......: 30-99      CHEMICAL ENGINEERING
  CURR. RESULTS: A METHOD FOR MEARSURING HENRYS LAW CONSTANTS (H) FOR LESS
                 VOLATILE ORGANIC COMPOUNDS IS BEING TESTED THE RESULTS LOOK
                 PROMISING HOWEVER TWO ISSUES HAVE NOT BEEN RESOLVED FIRST
                 EQUATHE EVAPORATION RATE IS INFLUENCED BY AIR HUMIDITY BUT THE
                 EXACT NATURE OF THIS EFFECT IS NOT CLEAR SECONDLY THERE APPEARS TO
                 BE SYNERGIOTIC INTERACTIONS IF POLLUTANT MIXTURES ARE USED
  ORDIS CODES..: RECN-005013           SSIE-GMA  6060 1      EPA -R805150        ORD -RK10B30-3080
                 LABN-K775-206         PE  -C61
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
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ABSTRACT.....: THE OBJECTIVE OF THE PROJECT IS TO DEVELOP A DEEPER QUANTITATIVE UNDERSTANDING OF THE PROCESSES BY WHICH SOME ENVIRONMENTAL CONTAMINANTS VOLATILIZE FROM WATER BODIES TO THE ATMOSPHERE. THE FINAL RESULT WILL BE A PREDICTIVE EQUATION(S) FOR VOLATILIZATION FROM NATURAL WATERS. ACCOMPLISHMENTS TO DATE INCLUDE: (1) METHOD DEVELOPMENT FOR MEASUREMENT OF HENRY'S LAW CONSTANTS (H). (2) MEASUREMENT OF H FOR A SERIES OF HYDROPHOBIC POLLUTANTS. (3) DETERMINATION OF ELECTROLYTE EFFECTS ON H. (4) DETERMINATION OF THE EFFECT OF WIND SPEED ON THE LIQUID PHASE MASS TRANSFER RATES FOR HYDROPHOBIC POLLUTANTS.

*PROJECT: 002941-IN VIVO INCORPORATION OF TOXIC ELEMENTS INTO ANIMAL TISSUES

TASK =J622B-000002 **EPA=R805175-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/77 - 08/79 : FY79

EPA OFFICER.: W BECKERT EPA/EMSL - LAS VEGAS 702-798-2137
INVESTIGATOR.: TF HOPKINS UNIV OF MARYLAND DEPT OF NAT SCI
MILESTONES...: 09/78 -DEVELOP AND DISTRIBUTE REFERENCE SAMPLES AND MATERIALS
07/79 -ANALYSES COMPLETED. MATERIAL SHIPPED TO EMSL-LV
02/80 -REPORT ON UPTAKE AND ANALYTICAL RESULTS
PROGRAM ID...: (PE-622) TECHNICAL SUPPORT -INTERDISCIPLINARY
FINAL OUTPUT.: REPORT ON UPTAKE AND ANALYTICAL RESULTS
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-02 CLEAN AIR ACT
10-03 TOXIC SUBSTANCES CONTROL ACT
CURR. RESULTS: ADMINISTRATION OF TOXICANTS COMPLETED, GOATS SACRIFICED AND TISSUE OF INTEREST RECOVERED. PROCESSING AND ANALYSIS OF TISSUES IN PROGRESS.
ORDIS CODES..: RECN-002941 SSIE-GMA 5345 1 EPA -R805175-01 ORD -RJ10B30-1079
PE -622
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE/APPROACH: TO PREPARE ANIMAL TISSUE MATERIAL CONTAINING TOXIC ELEMENTS VIA IN VIVO INCORPORATION. THE ELEMENTAL COMPOUNDS TO BE STUDIED WILL BE ENCLOSED IN GELATINOUS CAPSULES AND ADMINISTERED ORALLY ON A DAILY BASIS. FINAL OUTPUT: REFERENCE MATERIALS CONTAINING IN VIVO INCORPORATED TOXIC ELEMENTS.

*PROJECT: 003111-INTERACTIONS OF METAL IONS WITH ORGANIC LIGANDS IN NATURAL WATERS

TASK =KC34 -000214 **EPA=R805183 ** (GRANT)
STARTING/ COMPLETION DATE : 04/77 - 04/80 : FY80

EPA OFFICER.: DS BROWN — EPA/ERL - ATHENS — FTS 8-250-3592
INVESTIGATOR.: DF NATUSCH — COLORADO STATE UNIV — CHEM/ELEC ENG DEPTS
RK SKOGERBOE — COLORADO STATE UNIV — CHEM/ELEC ENG DEPTS
JA OSTERYOUNG — COLORADO STATE UNIV — CHEM/ELEC ENG DEPTS
SA WILSON — COLORADO STATE UNIV — CHEM/ELEC ENG DEPTS

MILESTONES...: 10/77 -PUBLICATION ON RING-DISC ELECTRODE SYSTEM
04/78 -PUBLICATION ON INORGANIC AND TOTAL MERCURY METHOD
05/80 -FINAL REPORT ON METAL COMPLEXATION CONSTANTS

PROGRAM ID...: (PE-C34) RENEWABLE RESOURCES -WATER QUALITY

FINAL OUTPUT.: DATA SET OF STABILITY CONSTANTS FOR KEY METAL-ORGANIC COMPLEXES AND MATHEMATICAL TREATMENT OF PARAMETERS.

MANDATE......: 30-99 ELECTRO-ANALYTICAL CHEMISTRY

CURR. RESULTS: LABORATORY METHODS DEVELOPMENT WAS COMPLETED. A MODIFIED FLORENCE AND BATLEY SEPARATION SCHEME WAS THOROUGHLY TESTED AND APPLIED TO A SERIES OF WATER SAMPLES FROM VARIOUS SOURCES.
TWO MANUSCRIORS WERE PREPARED COVERING PORTIONS OF THE EXPERIMENTAL WORK TO DATE 1. "EVALUATION OF VOLTAMMETRIC METHODS FOR DETERMINATION OF METAL BINDING BY FULVIC ACID BY S.A WILSON,T.C HUTH, RE ARNDT, R.K SKOGERBOE 2.REDUCTON

ORDIS CODES..: RECN-003111 — SSIE-GMA 4011 3 — EPA -R805183 — ORD -RK10B30-3080
LABN-K617B-214 — PE -C34

PROJ STATUS..: ACTIVE -MULTIYEAR — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- 06-28-80
CATEGORY-RESEARCH — ACCESS-PUBLIC

ABSTRACT.....: THE GENERAL OBJECTIVES OF THIS INVESTIGATION ARE TO DEVELOP METHODS FOR THE CHARACTERIZATION OF THE BINDING OF METALS BY ORGANIC LIGANDS COMMON IN NATURAL WATERS AND TO APPLY THESE METHODS TO THE DETERMINATION OF METAL BINDING PARAMETERS. SPECIFIC AIMS INCLUDE: (1) DEVELOPMENT OF METHODS FOR DIRECT SENSING OF METAL SPECIES; (2) ISOLATION AND CHARACTERIZATION OF METAL-LIGAND COMPLEXES; (3) MEASUREMENT OF PERTINENT METAL BINDING PARAMETERS FOR COMMON ORGANIC LIGANDS. THE APPROACH INCLUDES DEVELOPMENT OF ELECTROCHEMICAL, SPECTROCHEMICAL, CHROMATOGRAPHIC, AND CHEMICAL TREATMENT PROCEDURES TO BE USED IN COMBINATION FOR THE CHARACTERIZATION OF METAL-ORGANIC SPECIES. AS THE PROCEDURES EVOLVE THEY ARE BEING USED TO STUDY BOTH REAL AND SIMULATED NATURAL WATER SYSTEMS. FINAL OUTPUTS WILL INCLUDE A DATA SET OF STABILITY CONSTANTS FOR KEY METAL-ORGANIC COMPLEXES AND A MATHEMATICAL TREATMENT RELATING THESE PARAMETERS WHICH IS DESIGNED TO AID IN EVALUATING THE RELATIVE IMPORTANCE OF METAL-ORGANIC INTERACTIONS IN NATURAL WATERS.

·PROJECT: 006347-NEW APPROACHES TO QUANTITATING THE PULMONARY EFFEC EFFECTS OF INHALED POLLUTANTS
TASK =HC02 -914100 ··EPA=R805184 ·· (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 07/80 : FY80

EPA OFFICER.: MCDONNELL EPA/HERL - RTP 629-2601
INVESTIGATOR.: BROMBERG UNIV OF NORTH CAROLINA CHAPEL HILL NC 27514

MILESTONES...: 07/78 -INITIATE FORCED OSCILLATORY MEASUREMENTS.
09/78 -CONDUCT PILOT EXPERIMENTS.
01/80 -0-3 0-6 1-0 PPM O3 EXPOSURES.
07/79 -0-3 EFFECTS ON INTEGRATED MUCOCILLIARY CLEARANCES.
01/80 -NUCLEOTIDE LEVELS & LOCATIONS IN NORMAL ANIMALS.
07/80 -O3-SO2 MECH. & MICROWAS. BED/MICROCILLIARY CLRNCE.
07/80 -O3 EFFECTS ON CYCLICNUCLOTIDES.
07/80 -AIRWAY RECEPTOR STUDIES
07/80 -AIRWAYS EPITHELIAL TRANSPORT STUDIES

PROGRAM ID...: (PE-C02) HEALTH EFFECTS- CRITERIA POLLUTANTS -AIR
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-006347 SSIE-HZ 809141 EPA -R805184 ORD -RH10B30-1080
PE -C02
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: TO QUANTITATE THE EFFECTS OF INHALATION OF 01 PPM OZONE AND SO2-O3 MIXTURES ON AIRWAY MECHANICS AIRWAY NEURAL RECEPTORS AND VENTILATORY CONTROL MUCOCILIARY TRANSPORT AND RELATED BIOCHEMICAL PHENOMENA AND ON PULMONARY MICROCIRULATION IN ANIMALS.

·PROJECT: 001009-EPIDEMIOLOGICAL STUDY OF FARM FAMILIES UTILIZING MUNICIPAL SLUDGE

TASK =DC27 -1D0001 ··EPA=S805189 ·· (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 09/80 : FY80

EPA OFFICER.: NE KOWAL EPA/HERL - CINC FTS 8-684-7477
INVESTIGATOR.: VV HAMPARIAN OHIO STATE UNIV COLL OF MED
R DORN OHIO STATE UNIV COLL OF MED

MILESTONES...: 10/77 -PROJECT INITIATED
03/78 -FIRST LAND APPLICATION
06/80 -PROGRESS REPORT

PROGRAM ID...: (PE-C27) HEALTH EFFECTS - WATER QUALITY
MANDATE......: 10-15 SAFE DRINKING WATER ACT
ORDIS CODES..: RECN-001009 SSIE-GMA 5384 2 EPA -S805189 ORD -RD10B30-1080
LABN-D607A-003B PE -C27
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: HEALTH EFFECTS IN HUMANS AND ANIMALS RESULTING FROM THE APPLICATION OF MUNICIPAL SEWAGE SLUDGE TO FARMS IN OHIO WILL BE EVALUATED. SUBJECTS COVERED INCLUDE: (1) MONITORING OF PATHOGENS IN STOOLS, SLUDGE, AND SOIL. (2) MONITORING FARM FAMILY HEALTH STATUS AND SEROLOGY. (3) RELATING SLUDGE VIRUS TO VIRAL INFECTIONS. (4) INVESTIGATING VIABILITY OF SOIL PATHOGENS. (5) MONITORING HEALTH STATUS OF FARM ANIMALS. (6) MONITOR TRACE ELEMENT ACCUMULATION OF CATTLE. (7) MEASURE PARASITE SURVIVAL AND INFECTION RATE OF CATTLE. (8) MONITOR ANIMALS FOR TUBERCULOSIS AND SALMONELLA INFECTION. 9. MONITOR CADMIUM CONTENT IN STOOLS AND RELATE TO CADMIUM INTAKE.

*PROJECT: 000637-DEMONSTRATION PROGRAM TO SHOW LANDOWNERS AND MUNICIPALITIES ACCEPTABLE
SYSTEMS FOR APPLYING SLUDGE ON LAND
TASK =CC36 -01TC35 **EPA=S805189-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/77 - 02/81 : FY80

EPA OFFICER.:	GK DOTSON	EPA/MERL - CINC	FTS-8-684-7661	
INVESTIGATOR.:	JK HILL	FARM BUR DEV CORP	COLUMBUS	OH 43216
	VV HAMPARIAN	OHIO STATE UNIV	COLL OF MED	
	CR DORN	OHIO STATE UNIV	COLUMBUS	OH 43210

PROGRAM ID...: (PE-C36) URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY

MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-04 PUBLIC HEALTH SERVICES ACT
10-05 RESOURCE CONSERVATION AND RECOVERY ACT
20-12 DAA FOR WATER PROGRAM OPERATIONS
20-14 DAA FOR SOLID WASTE

CURR. RESULTS: PRELIMINARY RESULTS INDICATE EFFECTIVE FERTILIZATION OF CROPS WITHOUT ADVERSE ENVIRONMMENTAL RESULTS INDICATE EFFECTIVE FERTILIZATION OF CROPS WITHOUT ADVERSE ENVIRONMENTAL EFFECTS OR ADVERSE EFFECT ON HEALTH OF PARTICIPATING FARM FAMILIES OR THEIR DOMESTIC ANIMALS

ORDIS CODES..:	RECN-000637	SSIE-GMA 3975 3	EPA -S805189-01	ORD -RC10B30-5080
	LABN-C611B-7061	PE -C36		
PROJ STATUS..:	ACTIVE -MULTIYEAR	INFO-UPDATED	ENTERED - UNKNOWN	UPDATED- 06-28-80
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT.....: OBJECTIVE: THE OBJECTIVE IS TO DEMONSTRATE SAFE, BENEFICIAL USE OF WASTEWATER SLUDGE AS A SOIL AMENDMENT ON AGRICULTURAL LAND. INSTITUTIONAL ARRANGEMENTS TO PERMIT OBJECTIVE EVALUATIONS AND DECISIONS BY BOTH RURAL AND URBAN RESIDENTS WILL BE DEMONSTRATED. THE EFFECT OF PROPER APPLICATION AND MANAGEMENT OF A LAND APPLICATION OF SLUDGE ON PUBLIC HEALTH AND THE ENVIRONMENT WILL BE DETERMINED. APPROACH: FOUR COMMUNITIES IN OHIO THAT ALREADY DISPOSE OF SLUDGE BY SPREADING IT ON FARM LAND WILL SUPPLY SLUDGE FOR APPLICATION TO SELECTED FARMS IN A CAREFULLY PLANNED AND MANAGED SYSTEM. IN ADDITION TO SLUDGE APPLICATION ON FIELDS, SLUDGE WILL BE APPLIED TO CAREFULLY SELECTED PLOTS FOR MEASUREMENT OF ITS EFFECT ON YIELD AND COMPOSITION OF CROP, COMPOSITION OF SOIL, AND CONSUMPTION OF GROUND AND SURFACE WATER. AN EPIDEMIOLOGICAL STUDY OF LIVESTOCK AND PEOPLE WHO COME IN CONTACT WITH SLUDGES WILL MEASURE THE HEALTH EFFECTS OF SLUDGE SPREADING.

*PROJECT: 001035-ENVIRONMENTAL CONTAMINANTS - EFFECTS ON TUMOR GROWTH AND IMMUNITY

TASK =D607A-010800 **EPA=R805210-03 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 07/80 : FY79

EPA OFFICER.: KL BLACKBURN EPA/HERL - CINC 513-684-7406
INVESTIGATOR.: LD KOLLER OREGON STATE UNIV SCH OF VET MED
NI KERKVLIET OREGON STATE UNIV SCH OF VET MED

MILESTONES...: 08/78 -COMPLETE INFLUENCE OF CD ON TUMOR GROWTH
02/79 -COMPLETE CD CELLULAR CYTOTOXICITY STUDIES
08/79 -COMPLETE INFLUENCE OF AS ON TUMOR GROWTH
02/80 -COMPLETE AS CELLULAR CYTOTOXICITY STUDIES
07/80 -CD AND AS INFLUENCE ON A NON-VIRAL INDUCED TUMOR AND DEV. OF IMMUNITY

PROGRAM ID...: (PE-607) HEALTH EFFECTS - WATER QUALITY
MANDATE......: 10-15 SAFE DRINKING WATER ACT
CURR. RESULTS: ARSENIC APPEARED TO CONFER PROTECTION AGAINST TUMOR DEVELOPMENT. HEXACHLOROBENZENE CONFERRED PROTECTIVE EFFECT TOWARDS EMC VIRAL CHALLENGE AND MCA-INDUCED TUMOR GROWTH. PURE PHENTACHLOROPHENOL CAUSED FEW CHANGES BUT TECHNICAL PENTACHLOROPHENOL RESULTED IN SIGNIFICANT ENHANCEMENT OF MCA AND MCV INDUCED TUMOR GROWTH.

ORDIS CODES..: RECN-001035 SSIE-GMA 4543 2 EPA -R805210-03 ORD -RD10E30-1079
LABN-D607A-027 PE -607
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE PROPOSED STUDY WILL DETERMINE THE EFFECTS ARSENIC AND CADMIUM HAVE ON THE IMMUNE RESPONSE OF MICE TO A GROWING TUMOR AND THE EFFECTS OF CONTAMINANT-INDUCED IMMUNE ALTERATION ON THE INCIDENCE AND GROWTH RATE OF TUMORS IN EXPOSED ANIMALS. SEVERAL PARAMETERS OF IMMUNITY WILL BE ASSESSED AT VARIOUS TIMES AFTER TUMOR INOCULATION. ASSAYS WILL INCLUDE LYMPHOCYTE-MEDIATED CYTOTOXICITY, SERUM-BLOCKING ACTIVITY, LYMPHOKINE PRODUCTION, AND LYMPHOCYTE BLASTOGENESIS. IN ADDITION, CONTAMINANT-EXPOSED ANIMALS WILL BE MONITORED FOR CHANGES IN IN VIVO TUMOR GROWTH PARAMETERS (REGRESSION, PROGRESSION, METASTASES FORMATION). CADMIUM AND ARSENIC WILL BE ADMINISTERED IN THE DRINKING WATER FOR 15 WEEKS PRIOR TO TUMOR INOCULATION AND IMMUNE TESTING. SUB-CLINICAL DOSES OF THE CONTAMINANTS WILL BE INCLUDED. TWO TUMOR SYSTEMS, A METHYLCHOLANTHRENE-INDUCED AND A MOLONEY VIRUS-INDUCED SYSTEM, WILL BE UTILIZED TO COMPARE THE DIFFERENCES IN IMMUNE FUNCTION BETWEEN A CHEMICALLY INDUCED AND A VIRUS INDUCED TUMOR IN THE PRESENCE OF CADMIUM AND ARSENIC. A HIGHLY SIGNIFICANT DOSE DEPENDENT INHIBITION OF GMSB-6 TUMOR GROWTH WAS OBSERVED IN CD EXPOSED MICE. THE EFFECT OF CD EXPOSURE ON CELL MEDIATED CYTOTOXICITY WAS NOT APPARENT. INHIBITION OF CYTOTOXICITY BY CD WAS NOT FOUND.

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*PROJECT: 002251-FIELD INSTRUMENTATION FOR REAL-TIME MONITORING OF RESPIRABLE AND
                 NON-RESPIRABLE DUST CONCENTRATION IN THE AIR
                   TASK =G832B-EA-201 **EPA=R805222-02S1** (GRANT)
                   STARTING/ COMPLETION DATE : 08/77 - 06/80 :   FY79
  EPA  OFFICER.: CW LEWIS               EPA/ESRL - RTP                  FTS 8-629-3154
  INVESTIGATOR.: H  PATASHNICK          DUDLEY OBSERVATORY              LATHAM                  NY 12110
  MILESTONES...: 09/78 -FIRST PROTOTYPE COMPLETED
                 09/79 -IMPROVED PROTOTYPE COMPLETED
                 06/80 -DELIVERY OF INSTRUMENTATION TO MEASURE AMBIENT AEROSOL MASS IN REAL
  PROGRAM ID...: (PE-832 )          TRANSPORTATION & FATE- ENERGY
  FINAL OUTPUT.: DELIVERY OF INSTRUMENTATION TO MEASURE AMBIENT
                 AEROSOL MASS IN REAL TIME.
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: SATISFACTORY METHOD OF COLLECTING OF AEROSOL ON
                 MICROBALANCE DEMONSTRATED.  A 5 LITER/MINUTE FLOW
                 RATE ACHIEVED.  SERIES OF AMBIENT MEASUREMENTS AT
                 15 MINUTE INTERVALS OBTAINED.
  ORDIS CODES..: RECN-002251        SSIE-GMA  3789 2     EPA -R805222-02S1     ORD -RG10B30-1079
                 LABN-G712B-BE-47   PE  -832
  PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED         ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DEVELOP AN INSTRUMENT FOR REAL-TIME MEASUREMENT OF AMBIENT AEROSOL MASS. APPROACH: THE
                  INSTRUMENT IS BASED ON A NEWLY DEVELOPED DEVICE --TAPERED ELEMENT OSCILLATING MICROBALANCE -- WHICH
                  IS SIMILAR TO CLASSICAL QUARTZ CRYSTAL MICROBALANCE BUT WITHOUT MANY OF THE LATTER'S PROBLEMS.
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·PROJECT: 000980-CONTINUOUS TWIN SCREW ACID HYDROLYSIS REACTOR DEVELOPMENT AND OPTIMIZATION FOR ONE-TON DAY WASTE CELLULOSE GLUCOSE PILOT P
TASK =CC2J -C2T903 ··EPA=R805239-03 ·· (GRANT)
STARTING/ COMPLETION DATE : 06/77 - 09/81 : FY80

EPA OFFICER.: CJ ROGERS EPA/MERL - CINC FTS 8-684-7881
INVESTIGATOR.: W BRENNER NEW YORK UNIV ARTS & SCI/APPL SCI DEPT
B RUGG NEW YORK UNIV ARTS & SCI/APPL SCI DEPT

MILESTONES...: 06/78 -COMPLETE DESIGN, INSTALLATION OF ONE-TON/DAY HYDROLYSIS PLANT.
12/78 -COMPLETE SHAKEDOWN OF PLANT
06/79 -COMPLETE OPTIMIZATION PILOT STUDIES
07/79 -INITIATE FULL-SCALE DEMONSTRATION OF 100 TON/DAY PLANT DESIGN
09/79 COMPLETE DESIGN AND PLANS FOR PLANT
10/79 -SITE FOR PLANT CONSTRUCTION SELECTED
06/80 -PLANT CONSTRUCTION COMPLETED (COMPONENT OF AN EXISTING FACILITY)
09/80 -FULL-SCALE DEMONSTRATION INITIATED
09/81 -FINAL REPORT

PROGRAM ID...: (PE-C2J) ENVIRN ASSES INPACT OF CONV & ADV ENERGY SYSTEMS

MANDATE......: 10-05 RESOURCE CONSERVATION AND RECOVERY ACT
20-14 DAA FOR SOLID WASTE

CURR. RESULTS: DESIGN AND INSTALLATION OF ONE-TON/DAY HYDORLYSIS PLANT COMPLETE. OPTIMIZATION OF THIS FACILITY IS ONGOING.

ORDIS CODES..: RECN-000980 SSIE-GMA 3947 3 EPA -R805239-03 ORD -RC10B30-5080
LABN-C827B-C2T903 PE -C2J

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: ACID HYDROLYSIS OF WASTE CELLULOSE IS POTENTIALLY VERY ATTRACTIVE BECAUSE CHEAP GLUCOSE WOULD BE A MOST USEFUL INTERMEDIATE FOR CHEMICALS AND ENERGY PRODUCTION. TECHNICAL PROBLEMS SUCH AS LOW GLUCOSE YIELDS AND LONG REACTION TIMES HAVE PREVENTED LARGE SCALE USAGE. THE PURPOSE OF THIS STUDY, THEN, IS TO MAXIMIZE GLUCOSE PRODUCTION FROM CELLULOSIC WASTES USING A PROCESS OF SELECTED PRETREATMENT OF CELLULOSIC WASTES FOLLOWED BY RAPID, HIGH TEMPERTURE ACID HYDROLYSIS. APPROACH: A 3-YEAR PROGRAM OF EXPERIMENTAL INVESTIGATIONS IS PROPOSED ON THE ADDITIONAL DEVELOPMENT AND OPTIMIZATION OF THE CONTINUOUS TWIN SCREW ACID HYDROLYSIS REACTOR FOR THE ESTABLISHMENT AND OPERATION OF A ONE-TON/DAY WASTE CELLULOSE-GLUCOSE PILOT PLANT. THIS PROGRAM ENCOMPASSES: (1) THE IDENTIFICATION OF ALL PERTINENT ACID HYDROLYSIS EQUIPMENT; (2) PROCUREMENT AND INSTALLATION; (3) OPTIMIZATION OF OPERATING CONDITIONS INCLUDING WASTE CELLULOSE FEED PREPARATION AND GLUCOSE RECOVERY; (4) PRODUCT QUALITY ANALYSIS; AND (5) DETERMINATION OF ENVIRONMENTAL IMPACT WITH MAXIMUM ENERGY CONSERVATION. INITIAL OPTIMIZATION WILL BE CARRIED OUT WITH WASTE NEWSPAPERS. THE EXPERIMENTAL WORK WILL BE SUPPLEMENTED BY A DETAILED ECONOMIC COST ANALYSIS WITH SUBSEQUENT PROJECTIONS FOR VARIOUS LARGER PRODUCTION SCALE-UPS.

*PROJECT: 005022-TREATMENT COMPATIBILITY OF MUNICIPAL WASTES AND BIOLOGICALLY HAZARDOUS INDUSTRIAL COMPOUNDS
TASK =L610F-000053 **EPA=R805242 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 01/80 : FY79

EPA OFFICER.: TE SHORT — EPA/ERL - ADA — FTS 8-743-2234
INVESTIGATOR.: DF KINCANNON — OKLAHOMA STATE UNIV — SCH OF CIVIL ENG
MILESTONES...: 01/80 -FINAL REPORT WRITTEN
PROGRAM ID...: (PE-610) INDUSTRIAL PROC. - WATER QUALITY
FINAL OUTPUT.: POSITIVE METHODS FOR MAKING REGULATORY DECISIONS REGARDING COMPATIBILITY AND/OR PRETREATMENT NEEDS.
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: DRAFT REPORT BEING REVISED BY GRANTEE
ORDIS CODES..: RECN-005022 — SSIE-GMA 6054 — EPA -R805242 — ORD -RL10B30-1079
LABN-L610F-17 — PE -610
PROJ STATUS..: ACTIVE -MULTIYEAR — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- JUL-SEP 79
CATEGORY-RESEARCH — ACCESS-PUBLIC

ABSTRACT.....: THE LIST OF INDUSTRIAL CHEMICALS PRESENTLY IDENTIFIED AS POTENTIALLY HAZARDOUS TO EFFLUENT QUALITY OF MUNICIPAL TREATMENT PLANTS IS RATHER LONG AND WILL PROBABLY GET LONGER. IT IS THE OBJECTIVE OF THIS RESEARCH TO DEVISE AND TEST METHODOLOGY FOR DETERMINING WHETHER VARIOUS LEVELS OF SUCH COMPOUNDS ARE COMPATIBLE WITH OR INTERFERE WITH THE TREATMENT OF MUNICIPAL WASTES BY THE ACTIVATED SLUDGE PROCESS. ANOTHER OBJECTIVE IS TO SCREEN COMPOUNDS FOR POTENTIAL INTERFERENCE AND/OR COMPATIBILITY. FOR EACH COMPOUND FULLY TESTED TWO LABORATORY SCALE CONTINUOUS FLOW PILOT PLANTS WILL BE FED SETTLED MUNCIPAL SEWAGE. 'AFTER ESTABLISHING IDENTICAL PERFORMANCE IN EACH SYSTEM ONE WILL SERVE AS A CONTROL WHILE THE OTHER WILL RECEIVE VARYING CONCENTRATIONS OF THE TEST COMPOUND IN ADDITION TO THE SEWAGE FEED. MANY TYPES OF ANALYTICAL DETERMINATIONS WILL BE EMPLOYED TO COMPARE BIOCHEMICAL PERFORMANCE AND SLUDGE SETTLE-ABILITY OF EACH SYSTEM. BATCH STUDIES USING BOTH SLUDGES WILL BE RUN TO DETERMINE IF IDENTICAL CONCLUSIONS AS TO COMPATIBILITY CAN BE DRAWN FROM BATCH AND CONTINUOUS FLOW PILOT PLANT STUDIES. SUCH COMPARISONS MAY LEAD TO MORE EASILY FACILITATED TESTING PROCEDURES. THE RESULTS OF THIS INVESTIGATION SHOULD PROVIDE POSITIVE METHODS FOR MAKING REGULATORY DECISIONS REGARDING COMPATIBILITY AND/OR PRETREATMENT NEEDS.

•PROJECT: 004794-OVER-WATER MEASUREMENTS OF ATMOSPHERIC PROCESSES

TASK =G603A-AA-123 ••EPA=R805263-0151•• (GRANT)
STARTING/ COMPLETION DATE : 01/78 - 08/81 : FY79

EPA OFFICER.: CF WALTERS EPA/ESRL - RTP 919-541-2648
INVESTIGATOR.: P HOBBS UNIV OF WASHINGTON ZOOL DEPT
MILESTONES...: 07/79 -COMPLETE FIELD STUDY
04/80 -INTERIM REPORT
08/81 -REPORT ON IN-CLOUD STUDIES OF SOX TRANSFORMATIONS
08/81 -ORD REPORT DESCRIBING SULFUR AND NITROGEN COMPOUND CONVERSIONS AS FUNCTIONS OF
PROGRAM ID...: (PE-603) TRANS. AND FATE -AIR
FINAL OUTPUT.: REPORT DESCRIBING SULFUR AND NITROGEN COMPOUND
CONVERSIONS AS FUNCTIONS OF HUMIDITY AND SUNLIGHT.
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: MEASUREMENTS TO BE PERFORMED SUMMER, 1979.
ORDIS CODES..: RECN-004794 SSIE-GMA 5802 1 EPA -R805263-0151 ORD -RG10B30-1079
PE -603
PROJ STATUS..: PROJECT-HISTORICAL INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: TO MEASURE TRANSFORMATIONS OF SO2 TO SULFATE AND NO/NO2 TO NITRIC ACID UNDER RELATIVELY HIGH HUMIDITY, LOW SUNLIGHT INTENSITY LEVELS. APPROACH: THE ISOLATED EMISSIONS FROM GREAT BRITAIN WILL BE SAMPLED SEQUENTIALLY AS AIR MOVES ACROSS THE NORTH SEA TOWARD THE SCANDINAVIAN PENINSULA TO MEASURE CONVERSION AND DEPOSITION RATES. COOPERATION WITH BRITISH AND NORWEGIAN SCIENTISTS IS REQUIRED.

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*PROJECT: 005036-MOVEMENT AND FATE OF VIRUSES AND ORGANIC POLLUTANTS IN GROUND WATER
                 DURING THE LAND TREATMENT OF WASTE WATER
                   TASK =L824C-000010 **EPA=R805292     ** (GRANT)
                   STARTING/ COMPLETION DATE : 07/77 - 07/80 :    FY79
 EPA  OFFICER.: JF MCNABB              EPA/ERL - ADA                FTS 8-743-2210
 INVESTIGATOR.: CP GERBA               BAYLOR COLLEGE OF MEDICINE   HOUSTON              TX 77030
 MILESTONES...: 07/78 -REPORT PRELIMINARY FINDINGS
                07/79 -REPORT PRELIMINARY FINDINGS
                07/80 -FINAL REPORT
 PROGRAM ID...: (PE-824 )         DRINK WATER TREAT & GROUND WATER PROT  -DRINKING WATER
 MANDATE......: 10-15     SAFE DRINKING WATER ACT
                10-01     FEDERAL WATER POLLUTION CONTROL ACT
                10-01     FEDERAL WATER POLLUTION CONTROL ACT
 CURR. RESULTS: NITROGEN DRIVE, SUBMERSIBLE PUMP BUILT FOR SAMPLING
                OF DEEP GROUND WATERS.  ORGANIC POLLUTANTS HAVE BEEN IDENTIFIED
                AND QUANTIFIED IN GROUND WATER AT 4 LAND APPLICATION SITES.
                VIRAL POLLUTANTS HAVE BEEN ISOLATED FROM GROUND WATER
                BENEATH TWO LAND APPLICATION SITES
 ORDIS CODES..: RECN-005036        SSIE-GMA  6028      EPA -R805292        ORD -RL10B30-1079
                LABN-L610B-10      LABN-L610C-19       PE  -824
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED        ENTERED - UNKNOWN    UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH    ACCESS-PUBLIC
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ABSTRACT.....: THE PURPOSE OF THIS PROJECT IS TO INVESTIGATE THE MOVEMENT OF VIRAL PATHOGENS AND ORGANIC POLLUTANTS FROM WASTEWATER INTO GROUND WATER DURING THE LAND APPLICATION OF WASTEWATER IN ORDER TO DEVELOP INFORMATION REQUIRED TO CONFIRM OR ADJUST EXISTING DESIGN AND OPERATION CRITERIA TO ASSURE THE PROTECTION OF GROUND WATER ASSOCIATED WITH SOIL TREATMENT FACILITIES. SPECIFIC OBJECTIVES INCLUDE: (1) THE IDENTIFICATION AND QUANTIFICATION OF ORGANIC POLLUTANTS IN GROUND WATER UNDERLYING SELECTED LAND APPLICATION SITES; (2) DETERMINATION OF THE EXTENT OF SLOW CHROMATOGRAPHIC MOVEMENT OF ORGANIC POLLUTANTS AND VIRUSES THROUGH SOIL INTO GROUND WATER USING COLUMN STUDIES; (3) DETERMINATION OF THE MECHANISMS OF VIRUS REMOVAL DURING PASSAGE OF WASTEWATER THROUGH SOIL USING BATCH AND COLUMN STUDIES AND A VARIETY OF VIRUSES AND SOILS; (4) DETERMINATION OF THE SURVIVAL OF VIRUSES IN SOIL UNDER A VARIETY OF ENVIRONMENTAL CONDITIONS; AND (5) EVALUATION OF THE USE OF ENTEROVIRUS-LIKE BACTERIOPHAGES AS INDICATORS OF ANIMAL VIRUS BEHAVIOR IN GROUND WATER.

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*PROJECT: 004955-REACTION OF ACTIVATED CARBON WITH AQUEOUS CHLORINE AND OTHER
          DISINFECTION AGENTS
            TASK =C824A-S1T056 **EPA=R805293-02  ** (GRANT)
            STARTING/ COMPLETION DATE : 07/77 - 07/80 :   FY79
 EPA  OFFICER.: AA STEVENS           EPA/MERL - CINC            FTS 8-684-7228
 INVESTIGATOR.: VL SNOEYINK          UNIV OF ILLINOIS           SCH OF ENG/CIV ENG DEPT
                WH PIRKLE            UNIV OF ILLINOIS           SCH OF ENG/CIV ENG DEPT
                JJ MCCREARY          UNIV OF ILLINOIS           SCH OF ENG/CIV ENG DEPT
                W  MCHIE             UNIV OF ILLINOIS           SCH OF ENG/CIV ENG DEPT
 MILESTONES...: 06/78 -INTERIM REPORT
                06/79 -INTERIM REPORT
                09/80 -FINAL REPORT PUBLISHED
 PROGRAM ID...: (PE-824 )          DRINK WATER TREAT & GROUND WATER PROT  -DRINKING WATER
 MANDATE......: 10-15     SAFE DRINKING WATER ACT
 CURR. RESULTS: PRODUCTS OF REACTIONS OF CHLORINE WITH ACTIVATED CARBON
                AND WITH ORGANICS ADSORBED ON GRANULAR ACTIVATED CARBON
                NOT BEING FOUND TO REPRESENT THREAT TO FINISHED
                DRINKING WATER QUALITY UNDER NORMAL CONDITIONS.
 ORDIS CODES..: RECN-004955        SSIE-GMA  6034       EPA -R805293-02      ORD -RC10B30-1079
                PE  -824
 PROJ STATUS..: PROJECT-HISTORICAL    INFO-UPDATED         ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH     ACCESS-PUBLIC
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ABSTRACT.....: ACTIVATED CARBON IS A STRONG REDUCING AGENT AND WHEN IT IS USED IN TREATMENT OF WATER SUPPLIES IT READILY REACTS WITH THE PREDISINFECTANT CHLORINE. DURING THE FIRST YEAR OF THE STUDY, JULY 20, 1977-JULY 19, 1978, IT WAS SHOWN THAT MANY CHLORINATED ORGANIC COMPOUNDS ARE FORMED WHEN CHLORINE REACTS WITH ACTIVATED CARBON, BOTH CARBON WHICH HAS NO PREADSORBED ORGANICS AND CARBON WHICH HAS HAD MATERIALS ADSORBED ONTO ITS SURFACE. THE PROPOSED RESEARCH WILL SHOW THE QUANTITIES OF CHLORINATED ORGANICS AND THE SPECIES WHICH ARE FORMED UNDER VARIOUS CHLORINATION CONDITIONS. COLUMN AND BATCH REACTORS WILL BE USED, AND CHLORINE CONCENTRATIONS AND THE CARBON DOSES WILL BE SELECTED TO SIMULATE THOSE OF IMPORTANCE IN POTABLE WATER TREATMENT. IN PARTICULAR, EMPHASIS WILL BE PLACED UPON THOSE COMPOUNDS WHICH CAN BE DETERMINED BY THE PURGE AND TRAP ANALYTICAL PROCEDURE, THOSE WHICH CAN BE EXTRACTED FROM WATER AND ANALYZED BY CAPILLARY COLUMN-GAS CHROMATOGRAPHY, AND THOSE HIGH MOLECULAR WEIGHT MATERIALS WHICH ARE NOT CHROMATOGRAPHABLE WITHOUT CHANGING THEIR CHARACTERISTICS. IN CONJUNCTION WITH THE WORK ON CHLORINE, SIMILAR STUDIES ARE ANTICIPATED USING CHLORINE DIOXIDE AND OZONE. RESULTS TO DATE: PRODUCTS OF REACTIONS OF CHLORINE WITH ACTIVATED CARBON AND WITH ORGANICS ADSORBED ON GRANULAR ACTIVATED CARBON DURING WATER TREATMENT ARE NOT BEING FOUND TO REPRESENT A THREAT TO FINISHED DRINKING WATER QUALITY UNDER CONDITIONS OF NORMAL PROCESS USE.

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*PROJECT: 001187-A STUDY OF CANCER AND THE PUBLIC DRINKING WATER SUPPLIES IN MISSOURI

               TASK =DC60 -1C0002 **EPA=R805297-03  ** (GRANT)
               STARTING/ COMPLETION DATE : 06/77 - 08/82 :   FY80
 EPA  OFFICER.: LJ MCCABE              EPA/HERL - CINC               513-684-7211
 INVESTIGATOR.: CJ MARIENFELD          UNIV OF MISSOURI              SCHOOL OF MEDICINE
 MILESTONES...: 07/78 -CANCER RATES BY WATER SUPPLY SERVICE AREA
                07/79 -BIOASSAY RESULTS ON SELECTED WATER SUPPLIES
                08/82 -FINAL REPORT
 PROGRAM ID...: (PE-C60 )          HEALTH EFFECTS  - DRINKING WATER
 MANDATE......: 20-13     DAA FOR DRINKING WATER
 CURR. RESULTS: SOME INTERESTING RELATIONSHIPS OBSERVED IN CANCER
                DEATH RATE IN MISSOURI AND WATER SUPPLY CHARACTERISTICS.
                SUPPLIES CLASSIFIED AS TO IMPACT OF COAL MINING AND
                BURNING.  IF MORE CONSISTENT RELATIONS ARE DEVELOPED
                MORE CHEMISTRY AND BIOASSAY WOULD SEEM WARRANTED.
 ORDIS CODES..: RECN-001187        SSIE-GMA  4367 3      EPA -R805297-03       ORD -RD10B30-2080
                LABN-D823B-031B    PE  -C60
 PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH  ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO DETERMINE IF DRINKING WATER CONTAMINANTS ARE CONTRIBUTING CAUSES FOR OBSERVED
                 VARIATIONS IN CANCER RATES AMONG COUNTIES AND WATER SERVICE AREAS IN MISSOURI. APPROACH: CANCER
                 MORTALITY RATES ARE COMPUTED FOR, AND COMPARED AMONG, GEOGRAPHIC AREAS DEFINED BY OCCURRENCE OF
                 DRINKING WATER CONTAMINANTS, WATER TREATMENT PRACTICES, ETC.


*PROJECT: 005039-POTENTIAL IMPACT OF ACIDIFIED PRECIPITATION ON ELEMENT CYCLING AND
                PRODUCTION IN SOUTHERN APPALACHIAN DECIDUOUS FORESTS
               TASK =M602 -000002 **EPA=R805305-01  ** (GRANT)
               STARTING/ COMPLETION DATE : 05/78 - 04/79 :   FY79
 EPA  OFFICER.: D  WEBER               EPA/ERL - CORVALLIS           503-757-4629
 INVESTIGATOR.: B  HAINES              UNIV OF GEORGIA               GRADUATE SCH
 MILESTONES...: 04/79 -FINAL REPORT
 PROGRAM ID...: (PE-602 )          ECOL. PROC. AND EFFECTS -AIR
 FINAL OUTPUT.: REPORT TO HELP SET NATL SECONDARY AIR QUAL STAND
 MANDATE......: 10-02     CLEAN AIR ACT
 ORDIS CODES..: RECN-005039        SSIE-GMA  6074        EPA -R805305-01       ORD -RM10B30-1079
                LABN-M602A-025     PE  -602
 PROJ STATUS..: PROJECT-COMPLETED  INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH  ACCESS-PUBLIC
 ABSTRACT.....: THE OBJECTIVES OF THIS PROJECT ARE TO DETERMINE THE EFFECTS OF SIMULATED ACID RAIN ON NUTRIENT
                 CYCLING AND THE PRODUCTIVITY OF SELECTED DECIDUOUS FOREST SPECIES. EXPERIMENTAL WORK INVOLVING THE
                 EFFECTS OF SIMULATED ACIDIC RAIN ON ROOTS, LEAVES AND SOILS FORM THE BASIS FOR THE MODELING EFFORT.
                 SIX SPECIES OF TREES ARE INVOLVED.
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*PROJECT: 001132-IDENTIFICATION AND PREVALENCE OF YERSINIA IN WASHINGTON STATE WATER
          SUPPLIES
            TASK =DC60 -7J0001 **EPA=R805313     ** (GRANT)
            STARTING/ COMPLETION DATE : 06/77 - 06/80 :    FY80
 EPA  OFFICER.: TH ERICKSEN          EPA/HERL - CINC              FTS 8-684-7223
 INVESTIGATOR.: TF WETZLER           UNIV OF WASHINGTON           SCHOOL OF PUBLIC HLTH
 MILESTONES...: 06/78 -ANNUAL REPORT
                06/79 -ANNUAL REPORT
                06/80 -FINAL REPORT
                06/80 -DETERMINATION OF OCCURRENCE OF YERSINIA IN WATER SUPPLIES AND RELATIONSHIP TO I
 PROGRAM ID...: (PE-C60 )           HEALTH EFFECTS  - DRINKING WATER
 FINAL OUTPUT.: DETERMINATION OF OCCURENCE OF YERSINIA IN RAW AND
                TREATED WATER SUPPLIES AND RELATIONSHIP TO INDICATOR
                ORGANISMS.
 MANDATE......: 10-15     SAFE DRINKING WATER ACT
                20-13     DAA FOR DRINKING WATER
 CURR. RESULTS: BIOCHEMICAL PROPERTIES, BIOCHEMICAL PROFILES AND
                SEROLOGIC TYPING COMPLETED ON 154 YERSINIA ISOLATES.
                ANTISERA FOR 25 EURPOEAN STRAINS PREPARED.  ANTISERA
                FOR UNTYPABLE STRAINS IN PROGRESS.  VIRULENCE TESTING
                WITH "SUCKLIN" MICE AND GERBILS STANDARDIZED.
 ORDIS CODES..: RECN-001132         SSIE-GMA  4351 3      EPA -R805313        ORD -RD10B30-5080
                LABN-D823A-013      PE  -C60
 PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN   UPDATED-  06-28-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: DETERMINE PREVALENCE OF YERSINIA ENTEROCOLITICA AND INDICATOR ORGANISMS IN NON-TREATED.
                 FILTERED AND CHLORINATED WATER SUPPLIES IN WASHINGTON STATE. IDENTIFY THE ISOLATES AND DETERMINE
                 THEIR VIRULENCE. PRODUCE ANTISERA TO NON-TYPABLE STRAINS ISOLATED. ESTABLISH LEVELS OF YERSINIOSIS
                 IN WASHINGTON STATE AND ATTEMPT TO ESTABLISH THE SOURCE OF THE ETIOLOGIC AGENT. APPROACH: EXAMINE
                 WATER SAMPLES FROM 50 SELECTED WATER SYSTEMS. INDICATORS OF THE SANITARY QUALITY OF THE WATER ARE
                 ALSO DETERMINED. ALL YERSINIA ISOLATES WILL BE IDENTIFIED BIOCHEMICALLY AND SEROLOGICALLY. ANTISERA
                 DEVELOPED FOR UNTYPABLE STRAINS WILL BE DEVELOPED. VIRULENCE TESTING OF YERSINIA ISOLATED INCLUDES
                 THE "SUCKLING" MOUSE TEST AND GERBIL YERSINIOSIS WILL BE CORRELATED TO POTENTIAL WATER-OR
                 FOOD-BORNE TRANSMISSION.
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*PROJECT: 006351-POLLUTANTS, AERO-ALLERGENS, AND RESPIRATORY DISEASES.

TASK =HC03 -931600 **EPA=R805318 ** (GRANT)
STARTING/ COMPLETION DATE : 08/77 - 09/81 : FY80

EPA OFFICER.: CG HAYES EPA/HERL - RTP FTS 8-629-2242
INVESTIGATOR.: LEBOWITZ UNIV OF ARIZONA TUCSON AZ 85721
MILESTONES...: 10/81 -FINAL REPORT
PROGRAM ID...: (PE-C03) HEALTH EFFECTS/ NON-CRIT POLL -AIR
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-006351 SSIE-HZ 809316 EPA -R805318 ORD -RH10B30-1080
PE -C03
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE INFLUENCE OF CERTAIN MACRO- AND MICRO-ENVIRONMENTAL FACTORS ON THE DEVELOPMENT OF AIRWAYS OBSTRUCTIVE DISEASES WILL BE ASSESSED. THESE FACTORS FREQUENTLY HAVE BEEN HYPOTHESIZED AND SHOWN TO BE IMPORTANT IN THESE DISEASES. THEY INCLUDE AIR POLLUTANTS (INCLUDING DUST), AERO-ALLERGENS (POLLENS, MOLDS, FUNGI, ALGAE) AND CLIMATE. APPROXIMATELY 125 FAMILIES IN GEOGRAPHICALLY DEFINED CLUSTERS WILL BE MONITORED DAILY BY THE USE OF DAILY DIARIES AND MINI-WRIGHT PEAK FLOW METERS. SAMPLES OF THESE FAMILIES IN EACH CLUSTER WILL HAVE 3 DAYS OF MICRO-AIR POLLUTANT, METEOROLOGICAL, AND AERO-ALLERGEN MONITORING, INDOORS AND OUTDOORS. POLLUTANTS TO BE MONITORED INCLUDE NO2, O3, CO, RESPIRABLE AND TOTAL SUSPENDED PARTICULATE. MACRO-MONITORING OF THOSE POLLUTANTS AND OF AERO-ALLERGENS, AS WELL AS METEOROLOGICAL VARIABLES, WILL OCCUR WITHIN THESE CLUSTERS. HUMAN AND ENVIRONMENTAL MONITORING WILL BE PERFORMED FOR A PERIOD OF TWO YEARS. APPROXIMATELY 24 MONTHS OF MACRO-ENVIRONMENTAL MONITORING HAS OCCURRED AND APPROXIMATELY 18 MONTHS OF MICRO-MONITORING HAS OCCURRED, INCLUDING HUMAN STUDIES. PRESENT PLANS CALL FOR THE HUMAN STUDIES AND ENVIRONMENTAL MONITORING TO PROCEED FOR APPROXIMATELY 10 MORE MONTHS. DURING THIS TIME, THE FAMILIES WILL CONTINUE TO BE STUDIED TO DETERMINE AIRWAY REACTIVITY, USING A BRONCHIAL CHALLENGE. OTHER PHYSIOLOGICAL TESTS PERFORMED IN THE LARATORY WILL PROVIDE FURTHER BACKGROUND INFORMATION ON THESE SUBJECTS.

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U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R805319-03

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Monitoring Insect Populations in Utah Alfalfa Fields to Modify Control Practices

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Donald W. Davis, Professor of Entomology
Department of Biology UMC 53
Utah State University
Logan, Utah 84322

NAME AND ADDRESS OF APPLICANT INSTITUTION

Utah State University
Logan, Utah 84322

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objective 1. Take information from alfalfa insect research and apply it at the farm operational level. Approach for 1. Data have been accumulated from years of alfalfa insect research in Utah. Included are: weevil biology, biological control, chemical control, economic injury levels, and modeling data. This project consolidates this material into a trial pest management program to integrate the above information. Objective 2. Demonstrate to alfalfa growers of the intermountain region the value of basing pest control on conditions in individual fields, rather than applying pesticides routinely. Approach for 2. This involves close cooperation with extension personnel in publicizing results to growers. Progress during 1977 and 1978: 1. Sampling and prediction methods were effective on forage alfalfa. Verifications of basic pest management procedures were successful. 2. Harvesting date adjustments in relation to the alfalfa weevil development were effective in control. Problems, such as weather or very large acreages, may be limiting under some conditions, but the technique was valid. 3. Many growers switched from an automatic spraying program to practices based on actual or predicted pest conditions. About 60-80% of the fields were sprayed during 1965-1970, with only 10% sprayed in 1978. 4. A clearer concept of seasonal and geographic patterns of alfalfa insects has been developed. Some areas routinely have more pest problems. 5. We employed 8 different students who indicated plans to enter pest management as a profession. This project was a valuable part of the education program.

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*PROJECT: 000104-EVALUATION OF THE DIONEX ION-EXCHANGE CHROMATOGRAPH FOR NATURAL WATER
                 SAMPLE ANALYSIS
                   TASK =A622B-000004 **EPA=R805329-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 08/77 - UNK   :   FY79
 EPA  OFFICER.: MF GALES               EPA/EMSL - CINC              513-684-7307
 INVESTIGATOR.: A  SCHLUETER           CENTRAL STATE UNIV           SCH OF ARTS & SCI
 MILESTONES...: 01/78 -DETERMINE THE STABILITY OF RETENTIONS TIMES
                04/78 -QUANTITATIVE DETERMINATION OF CONCENTRATIONS
                08/78 -DETERMINE THE SENSITIVITY OF THE INSTRUMENT
 PROGRAM ID...: (PE-622 )        TECHNICAL SUPPORT -INTERDISCIPLINARY
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                20-13     DAA FOR DRINKING WATER
 CURR. RESULTS: STUDIED STABILITY OF RETENTION TIMES FOR SPECIFIC IONS.
                ALSO STUDIED QUANTITATIVE DETERMINATION OF NINE ELEMENTS.
                STUDIED SOME PROBLEMS OF INSTRUMENT.
                EVALUATED EFFECT OF PH AND TIME ON PRESERVATION
                OF CHROMIUM.
 ORDIS CODES..: RECN-000104        SSIE-GMA  4331 2     EPA -R805329-01      ORD -RA10B30-5079
                PE  -622
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH    ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: THE PRINCIPAL OBJECTIVE OF THIS RESEARCH IS TO EVALUATE THE ANALYTICAL CAPABILITY OF THE DIONEX ION EXCHANGE CHROMATOGRAPH. THIS INSTRUMENT HAS THE POTENTIAL FOR DETERMINING SIMULTANEOUSLY, IN A SINGLE STEP, THE CONCENTRATIONS OF MANY IONS THAT WOULD OTHERWISE REQUIRE HOURS OF LABORATORY WORK. APPROACH: WORK IN THIS PROJECT WILL INITIALLY CONCENTRATE ON USING THE DIONEX INSTRUMENT TO SEPARATE AND DETECT THE ANIONS TYPICALLY FOUND IN NATURAL WATER. AS WORK ON ANION ANALYSIS PROGRESSES, STUDIES OF ALKALI AND ALKALI-EARTH METAL WILL BEGIN.

•PROJECT: 006630-DEVELOPMENT OF AN IN VITRO NEUROTOXICITY ASSAY

TASK =HC86 -948100 **EPA=R805339 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 07/80 : FY80

EPA OFFICER..: RL BARON EPA/HERL - RTP FTS 8-629-2655
INVESTIGATOR.: RICHARDSON UNIV OF MICHIGAN ANN ARBOR MI 48109
MILESTONES...: 12/78 -DEVELOP NEUROTOXIC ESTERASE ASSAY
06/78 -ISOLATE NEUROTOXIC ESTERASE FRACTION
12/78 -IMMOBILIZE NEUROTOXIC ESTERASE
06/80 -CHARACTERIZE NEUROTOXIC ESTERASE
06/80 -DEFINE PHYSIOLOGICAL FRACTION OF ESTERASE
06/79 -EVALUATE NTE FROM OTHER THAN NERVOUS TISSUES
07/80 -COMPARE RAT AND HEN NTE
07/80 -KINETIC STUDIES ON NTE
07/80 -FINAL REPORT
PROGRAM ID...: (PE-C86) HEALTH EFFECTS - PESTICIDES
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
ORDIS CODES..: RECN-006630 SSIE-HZ 809481 EPA -R805339 ORD -RH10830-1080
PE -C86
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: EVALUATE PHYSIOLOGICAL ROLE OF NEUROTOXIC ESTERASE ISOLATE & PURIFY NEUROTOXIC ESTERASE DEFINE DELAYED MODE OF ACTION OF NEUROTOXIC ORGANOPHOSPHATES WORK IS PROGRESSING ON SOLUBILIZATION AND PURIFICATION OF NEUROTOXIC ESTERASE (NTE), STABILITY STUDIES OF NTE UNDER VARIOUS STORAGE CONDITIONS AND STUDIES OF NTE FROM SOURCES OTHER THAN HEN OR CHICK BRAIN-ESPECIALLY LYMPHOCYTE NTE. SOLUBILIZATION OF CHICK BRAIN NTE HAS BEEN CARRIED OUT WITH A VARIETY OF DETERGENTS. THE MOST STABLE PREPARATION TO BE SOLUBLE ENZYME PREPARED FROM CHICK BRAIN MICROSOMES WITH TRITON X-100 IN DISTILLED WATER (NO BUFFER OR SALTS PRESENT). THIS SOLUBLE PREPARATION, OR ITS LYOPHILYZED FORM, RETAINED FULL ACTIVITY AFTER STORAGE FOR 12 WEEKS AT -10 DEGREES C. IMOBILIZED FORMS OF NTE HAVE SO FAR PROVED TO BE LESS STABLE THAN NATIVE, SOLUBILIZED OR LYOPHILYZED FORMS. IN ORDER TO EVENTUALLY DEVELOP AN AUTOMATED PROCEDURE FOR RAPID SCREENING OF COMPOUNDS, THE BEST APPROACH IS TO USE A STABLE IMMOBILIZED FORM OF THE PURE ENZYME. EFFORTS TO PURIFY THE ENZYME WILL CONTINUE AS WILL IMMOBILIZATION ATTEMPTS. A PRELIMINARY SPECIES COMPARISON/PHYLOGENETIC STUDY OF BRAIN NTE HAS BEEN PERFORMED USING INHIBITION TITRATION CURVES ON BRAIN HOMOGENATES FROM SHARK, NEWT, CHICK, HEN, RAT, AND SHEEP. OTHER PARAMETERS OF CHARACTERIZATION ARE BEING EXAMINED, SUCH AS HEAT INACTIVATION AND ENERGY OF ACTIVATION. THERE APPEARS TO BE A REAL DIFFERENCE IN HEAT STABILITY BETWEEN RAT AND HEN NTE. ALSO, IT APPEARS THAT NTE IS PRESENT IN SMALL AMOUNTS IN THE NEWT, BUT ABSENT IN THE SHARK. SHEEP BRAIN CERTAINLY HAS ACTIVITY AND PROMISES TO BE A SOURCE FOR LARGERSCALE SOLUBILIZATION AND PURIFICATION. NTE IN LYMPHOCYTES CONTINUES TO LOOK PROMISING FOR BIOMONITOR DEVELOPMENT AND INTERESTING FROM A MECHANISTIC STANDPOINT. THE FINDING OF NTE IN FORMED ELEMENTS OF THE BLOOD NOW EXTENDS TO PLATELETS AS WELL AS LYMPHOCYTES. OTHER LEUKOCYTE TYPES HAVE YET TO BE CHARACTERIZED WITH RESPECT TO NTE CONTENT. WE DO KNOW THAT NTE IS ABSENT FROM RED CELLS AND PLASMA. WORK HAS JUST BEGUN ON IMMOBILIZING LYMPHOCYTES ON POLYLYSINE-COATED POLYACRYLAMIDE BEADS, AND SHORT-TERM CELL CULTURE. A VARIETY OF APPROACHES TO THE STUDY OF NTE IS LEADING TO INFORMATION ABOUT THE ENZYME THAT SHOULD BE USEFUL IN ATTAINING THE PRACTICAL GOAL OF DEVELOPING A BETTER IN VITRO ASSAY FOR NEUROTOXICITY.

*PROJECT: 006307-DEVELOPMENT OF AN IN VITRO NEUROTOXICITY ASSAY

TASK =H615 -948100 **EPA=R805339 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 07/80 : FY79

EPA OFFICER.: RL BARON EPA/HERL - RTP FTS 8-629-2655
INVESTIGATOR.: UNKNOWN UNIV OF MICHIGAN ANN ARBOR MI 48109

MILESTONES...: 12/78 -DEVELOP NEUROTOXIC ESTERASE ASSAY
06/78 -ISOLATE NEUROTOXIC ESTERASE FRACTION
12/78 -IMMOBILIZE NEUROTOXIC ESTERASE
06/80 -CHARACTERIZE NEUROTOXIC ESTERASE
06/80 -DEFINE PHYSIOLOGICAL FRACTION OF ESTERASE
06/79 -EVALUATE NTE FROM OTHER THAN NERVOUS TISSUES
07/80 -COMPARE RAT AND HEN NTE
07/80 -KINETIC STUDIES ON NTE
07/80 -FINAL REPORT

PROGRAM ID...: (PE-615) HEALTH EFFECTS - PESTICIDES
MANDATE......: 20-30 AA FOR TOXIC SUBSTANCES
ORDIS CODES..: RECN-006307 SSIE-HZ 799481 EPA -R805339 ORD -RH10B30-2079
LABN-H615 -948100 PE -615
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: EVALUATE PHYSIOLOGICAL ROLE OF NEUROTOXIC ESTERASE ISOLATE & PURIFY NEUROTOXIC ESTERASE DEFINE DELAYED MODE OF ACTION OF NEUROTOXIC ORGANOPHOSPHATES NEUROTOXIC ESTERASE (NTE) ACTIVITY HAS BEEN DEMONSTRATED IN HUMAN LYMPHOCYTES AND PLATELETS BY DIFFERENTIAL TITRATION OF PHENYL VALERATE ESTERASE ACTIVITY. VALUES RELATIVE TO HEN BRAIN AND HEN LYMPHOCYTE WERE, RESPECTIVELY 74 AND 154 PERCENT FOR LYMPHOCYTES AND 57 AND 120 PERCENT FOR PLATELETS. SOLUBILIZATION STUDIES OF NTE FOR IMMOBILIZATION CONTINUE TO BE SUCCESSFUL. IN SUMMARY NTE IS A LIPID-DEPENDENT, INTEGRAL MEMBRANE PROTEIN, SODIUM CHOLATE SOLUBILIZED NTE CAN BE INCORPORATED INTO LIPID MICELLES BY INCLUDING ASOLECTIN (A MIXTURE OF SOYBEAN PHOSPHOLIPIDS) IN THE SOLUBILIZATION PROCESS. THE DETERGENT (CHOLATE) CAN BE REMOVED BY SEPHADEX G-25, WITHOUT LOSS OF ENZYME ACTIVITY. A SEARCH FOR OTHER SUBSTRATES AND INHIBITORS OF NTE IS BEING CARRIED OUT TO DEVELOP DATA ON THE GENERAL ENZYMOLOGY OF NTE, TO IMPROVE THE SENSITIVITY AND SELECTIVITY OF THE ASSAY, TO INVESTIGATE A CHROMOPHORIC OR FLUOROPHORIC SUBSTRATE TO ALLOW DIRECT QUANTITATION, TO PROTECT THE ACTIVE SITE DURING IMMOBILIZATION PROCEDURES. PRELIMINARY RESULTS HAVE SHOWN THAT NTE LACKS ACTIVITY TOWARD GLYCOSIDES. CYCLOHEXANE, VALEROPHENONE, F-PHENYL2-HEXANONE METHYL CYCLOHEXANE ETHYLBENZENE INHIBIT NTE ACTIVITY. METHYL VALERATE AND 2-HEXANONE CAUSED A 10 PERCENT INHIBITION WHILE INHIBITION BY BENZENE, TOLUENE, AND N-HEXANE FELL BETWEEN THESE TWO EXTREMES. STABILITY STUDIES OF VARIOUS PREPARATIONS OF NTE HAVE SHOWN THAT SOLUBLE NTE PREPARED WITHOUT BUFFER LOST LITTLE OR NO ACTIVITY AFTER FREEZING AND STORAGE AT -10 DEGREES C FOR 7 DAYS. A SIMILAR PREPARATION MADE WITH 0.05 M TRIS BUFFER, PH 8.0, AND THEN FROZEN, LOST 61 PERCENT ACTIVITY OVER 7 DAYS. UNBUFFERED SOLUBLE NTE COULD BE LYOPHILIZED WITH NO LOSS OF ACTIVITY.

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*PROJECT: 000039-TOTAL ORGANIC CHLORINE (TOCL) ANALYSIS - INSTRUMENTATION FOR DIRECT
                 DETERMINATION IN WATER WITHOUT PRECONCENTRATION
                  TASK =A614 -000039 **EPA=R805340-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 06/76 - 03/80 :   FY79
 EPA  OFFICER.: JJ LICHTENBERG           EPA/EMSL - CINC               FTS 8-684-7308
 INVESTIGATOR.: JG MONTALVO              GULF SOUTH RESEARCH INST      BATON ROUGE        LA 70808
                L  TRUXILLO              GULF SOUTH RESEARCH INST      BATON ROUGE        LA 70808
                R  WAWRO                 GULF SOUTH RESEARCH INST      BATON ROUGE        LA 70808
 MILESTONES...: 11/79 -REPORT OF FABRICATION OF INSTRUMENTS
                03/80 -PROVIDE A METHOD FOR ANALYZING TOTAL ORGANIC CHLORINE IN DRINKING WATER
 PROGRAM ID...: (PE-614 )          PUBLIC SECTOR ACTIVITIES- WATER SUPPLY
 FINAL OUTPUT.: CALIFORNIA UNIV. RIVERSIDE. DEPT SOIL AND ENV. SCI.
                PROCEEDINGS OF NATL. CONF. ON MGNT. OF NITROGEN IN
                IRRIGATED AGRICULTURE. HELD IN SACRAMENTO CA. MAY 15-18.78
                PB-284 692/IBE NSF/RA-780115 TOPICS PRESENTED INCLUDED
                NITROGEN ROLE IN AGRIC. PRODUCTION ITS RELATION TO
                WATER QUALITY . CROP UTILIZATION. ECONOMIC IMPACTS.
                AND CASE STUDIES.
 MANDATE......: 10-99     DRINKING WATER REGULATIONS
                20-13     DAA FOR DRINKING WATER
 CURR. RESULTS: PROTOTYPE FLASH EVAPORATORS STUDIED.
 ORDIS CODES..: RECN-000039          SSIE-GMA  5085 1      EPA -R805340-02      ORD -RA10B30-5079
                PE  -614
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH    ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: TO DEVELOP INSTRUMENTATION AND A RELIABLE AUTOMATIC TECHNIQUE TO MONITOR WATER SAMPLES AND PROCESS STREAMS FOR PPB LEVELS OF TOTAL ORGANIC CHLORINE. APPROACH: A FLASH EVAPORATOR IS BEING DEVELOPED WHICH WILL SEPARATE THE ORGANOHALIDES FROM THE COVALENTLY BONDED HALOGEN. THE ORGANIC HALIDES WILL THEN BE CONVERTED TO FREE HALOGEN IN A CATALYTIC COMBUSTION FURNACE AND THE FREE HALOGEN WILL THEN BE MONITORED BY FLUOROMETRY. RESULTS TO DATE: PROTOTYPE FLASH EVAPORATORS HAVE BEEN STUDIED.

*PROJECT: 001854-DETERMINATION OF NATURAL POLLUTANT FLUX AND DRY DEPOSITION RATES

TASK =G603A-AD-039 **EPA=R805342-02S1** (GRANT)
STARTING/ COMPLETION DATE : 06/77 - 08/80 : FY79

EPA OFFICER.: WA LONNEMAN EPA/ESRL - RTP FTS 8-629-2829
INVESTIGATOR.: E ROBINSON WASHINGTON STATE UNIV DEPT OF CIVIL & ENV ENGIN
PROGRAM ID...: (PE-603) TRANS. AND FATE -AIR
MANDATE......: 10-02 CLEAN AIR ACT
20-20 AA FOR AIR AND WASTE MANAGEMENT
CURR. RESULTS: VELOCITY DEPOSITION VD FOR OZONE AND SO2 DETERMINED.
THIS YEAR FORESTED TREE SURFACES WILL BE INVESTIGATED.
ORDIS CODES..: RECN-001854 SSIE-GMA 3872 2 EPA -R805342-02S1 ORD -RG10B30-5079
LABN-G603A-AF-005 PE -603
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: VERTICAL PROFILE MEASUREMENTS FOR NATURAL HYDROCARBONS, OZONE, AND OTHER POLLUTANTS WILL BE MADE TO DETERMINE FLUX VALUES FOR THESE COMPOUNDS. THE FLUX VALUES FOR NATURAL HYDROCARBONS WILL BE USED TO DETERMINE EMISSION RATES OF THESE COMPOUNDS FROM NATURAL FORESTED VEGETATION. THE FLUX VALUES FROM OZONE AND THE OTHER POLLUTANTS WILL BE USED TO DETERMINE VELOCITY DEPOSITION (OR REMOVAL) RATES. THIS STUDY WILL BE CONDUCTED IN COOPERATION WITH THE 1979 NORTHEAST REGIONAL OZONE STUDY. APPROACH: A VERTICAL SAMPLING TOWER WILL BE SITUATED IN A SELECTED FORESTED AREA OF THE NORTHEAST. MEASUREMENTS OF VERTICAL PROFILES FOR THE NATURAL HYDROCARBONS, OZONE, AND OTHER POLLUTANTS WILL BE MADE USING MODERN GAS CHROMATOGRAPHIC, AND CHEMILUMINESCENT TECHNIQUES. FROM THESE VERTICAL PROFILE MEASUREMENTS OF POLLUTANT, TEMPERATURE, WINDSPEED AND DEWPOINT, VERTICAL FLUXES OF THE POLLUTANTS WILL BE DETERMINED.

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*PROJECT: 000809-INVESTIGATION OF A FLUID BED CARBON REGENERATION SYSTEM AT MANCHESTER,
                NEW HAMPSHIRE
                  TASK =CC61 -01T045 **EPA=R805371-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 10/77 - 04/82 :   FY80
  EPA  OFFICER.: B  LYKINS                EPA/MERL - CINC              513-684-7460
  INVESTIGATOR.: R  BEAURIVAGE            MANCHESTER WATER WORKS       MANCHESTER       NH 03103
                 D  PARIS                 MANCHESTER WATER WORKS       MANCHESTER       NH 03103
                 D  KITTREDGE             MANCHESTER WATER WORKS       MANCHESTER       NH 03103
  PROGRAM ID...: (PE-C61 )          DRINK WATER TREATMENT & GROUND WATER PROT
  MANDATE......: 10-09     REORGANIZATION PLAN # 3
                 10-03     TOXIC SUBSTANCES CONTROL ACT
                 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                 10-02     CLEAN AIR ACT
  CURR. RESULTS: FLUIDIZES BED REACTIVATION FURNACE WASACCEPTEDIN JAN. 80
                 TEST FILTER (GAC) WAS PLACED ON LINE FEB.,80
  ORDIS CODES..: RECN-000809       SSIE-GMA  4029 3     EPA -R805371-01      ORD -RC10B30-1080
                 LABN-C614A-7149   PE  -C61
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
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ABSTRACT......: OBJECTIVE: THE OBJECTIVES OF THIS PROJECT WILL BE TO EVALUATE BOTH THE COST AND PERFORMANCE OF A CARBON REGENERATION SYSTEM UTILIZING FLUID BED PRINCIPLES, THE COST AND CAPABILITIES OF A SEMIAUTOMATIC SYSTEM FOR CARBON HANDLING, AND THE ADSORPTIVE EFFECTIVENESS OF VIRGIN CARBON AND REGENERATED CARBON FOR REMOVAL OF CHLORINATED ORGANIC SUBSTANCES FROM DRINKING WATER. APPROACH: THE GENERAL APPROACH WILL BE TO UTILIZE ONE OF THE FOUR CARBON FILTERS AT THE TREATMENT PLANT AS A TEST FILTER, TO FILL ONE-HALF OF THE FILTER WITH VIRGIN CARBON, THE REMAINING HALF WITH ONCE-REGENERATED CARBON, AND THEN TO COMPARE THE RATE OF TRIHALOMETHANE REMOVAL BETWEEN THE FILTERS OVER A REPEATED NUMBER OF REGENERATION CYCLES. THE CARBON WILL BE REGENERATED ON A NEAR CONTINUOUS BASIS OVER A TWO-YEAR MONITORING AND EVALUATION PERIOD BEGINNING IN JANUARY, 1980. INVESTIGATIVE WORK IS TO BE CARRIED OUT BY THE WATER SUPPLY STAFF OF THE MANCHESTER WATER WORKS WORKING IN CONJUNCTION WITH THE WATER SUPPLY RESEARCH STAFF OF EPA.

*PROJECT: 003595-MONITORING PLANT COMMUNITY CHANGES DUE TO FOSSIL FUEL POWER PLANTS IN
EASTERN MONTANA
TASK =M831 -000005 **EPA=R805391-03 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 07/80 : FY79

EPA OFFICER.: EM PRESTON EPA/ERL - CORVALLIS FTS 8-420-4636
INVESTIGATOR.: JE TAYLOR MONTANA STATE UNIV DEPT OF ANIMAL & RANGE SCI
MILESTONES...: 07/80 -FINAL REPORT
PROGRAM ID...: (PE-831) EFFECTS OF ENERGY REL POLLUTANTS
FINAL OUTPUT.: REPORT TO DEV. CAPACITY TO PREDICT ECOL. IMPACT OF
COAL-FIRED PLANT EMISSIONS BEFORE DAMAGE.
MANDATE......: 10-99 ENERGY REORG. ACT
ORDIS CODES..: RECN-003595 SSIE-GMA 4242 2 EPA -R805391-03 ORD -RM10B30-1079
LABN-M625A-023 PE -831
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO CONTINUE TO MONITOR AIR POLLUTION EFFECTS UPON NATIVE GRASSLANDS VEGETATION IN AREAS AFFECTED BY FOSSIL FUEL POWER PLANTS AND ON AREAS ARTIFICIALLY STRESSED WITH AIR POLLUTION; SUPPLY BASELINE INVENTORY INFORMATION, INCLUDING AERIAL PHOTOGRAPHY AND ITS INTERPRETATION, TO A VARIETY OF SCIENTISTS, LAND USERS, AND MANAGERS IN SOUTHEASTERN MONTANA; AND PROVIDE RIGOROUS DATA FOR SIMULATION MODELS WHICH CAN BE USED TO PREDICT BIOENVIRONMENTAL CHANGES DUE TO FOSSIL FUEL POWER GENERATION IN OTHER AREAS. FINAL OUTPUT: REPORT THAT HELPS DEVELOP THE CAPACITY TO PREDICT THE ECOLOGICAL IMPACTS OF COAL-FIRED POWER PLANT EMISSIONS BEFORE DAMAGE OCCURS.

*PROJECT: 004956-CHEMICAL CONTROL OF WATER QUALITY IN DISTRIBUTION SYSTEMS

TASK =CC61 -S1T059 **EPA=R805400 ** (GRANT)
STARTING/ COMPLETION DATE : 09/77 - 10/79 : FY80

EPA OFFICER.: MC GARDELS EPA/MERL - CINC FTS 8-684-7236
INVESTIGATOR.: JE SINGLEY STATE UNIV SYS OF FLORIDA ENV ENG DEPT
MILESTONES...: 10/78 -INTERIM REPORT
10/79 -INTERIM REPORT
01/81 -FINAL REPORT: PARAMETERS FOR EVAL. AND INDICES
PROGRAM ID...: (PE-C61) DRINK WATER TREATMENT & GROUND WATER PROT
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: ANNUAL REPORT SUBMITTED GIVING RESULTS OF LAB CORROSION STUDIES, PIPE LOOP DATA, AND COMPUTER CALCULATIONS OF STABILITY EQUATIONS. FIELD STUDIES HAVE BEGUN.
ORDIS CODES..: RECN-004956 SSIE-GMA 6040 1 EPA -R805400 LABN-C824A-S1T059
ORD -RC10B30-1080 PE -C61
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVES: TO DEVELOP APPROPRIATE CHEMICAL CONTROL MEASURES TO PREVENT CORROSION OF DISTRIBUTION SYSTEMS AND HOUSEHOLD PIPING BY POTABLE WATER, AND TO PREVENT THE DEGRADATION IN THE QUALITY OF THE WATER ITSELF. APPROACH: TO DETERMINE THE EFFECT OF WATER QUALITY PARAMETERS, SUCH AS PH, EH, DO AND IONIC COMPOSITION, ON PRECIPITATION OF CACO3 AND ON THE CORROSION RATE OF VARIOUS METALS.

*PROJECT: 003317-DETERMINATION OF KINETICS OF PHOSPHORUS MINERALIZATION IN SOILS UNDER OXIDIZING CONDITIONS
TASK =L822C-000026 **EPA=R805403-01 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 07/80 : FY79

EPA OFFICER.: CG ENFIELD — EPA/ERL - ADA — FTS 8-743-2334
INVESTIGATOR.: R ELLIS — KANSAS STATE UNIV — DEPT OF AGRONOMY
MILESTONES...: 07/80 -FINAL REPORT
PROGRAM ID...: (PE-822) CONTROL TECH & POINT SOURCE- WATER QUALITY
ORDIS CODES..: RECN-003317 SSIE-GMA 3852 2 EPA -R805403-01 ORD -RL10B30-4079
LABN-L822C-026 PE -822
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DETERMINE THE KINETICS OF PHOSPHORUS MINERALIZATION IN SOILS UNDER OXIDIZING CONDITIONS AND TO RELATE THESE FINDINGS TO THE MOVEMENT OF PHOSPHORUS IN SOILS. THE REGENERATIVE CAPACITY OF SOILS TO FIX PHOSPHORUS WILL BE STUDIED BY DETERMINING THE INFLUENCE OF RATES OF APPLICATION OF PHOSPHORUS AND INTERVALS BETWEEN APPLICATION ON PHOSPHORUS COMPOUNDS FORMED AND RATES OF TRANSFORMATION OF COMPOUNDS IN SOILS. APPROACH: 1. DETERMINATION OF PHOSPHATE POTENTIALS AT TIME INTERVALS FOR SOILS TO WHICH DIFFERENT RATES OF PHOSPHORUS HAVE BEEN ADDED. PHOSPHATE POTENTIALS WILL BE USED TO IDENTIFY THE PHOSPHORUS COMPOUNDS FORMED AND CHANGED WITH TIME. 2. PHOSPHORUS WILL BE ADDED TO THE SOILS AT DIFFERENT TIME INTERVALS TO DETERMINE THE BEST TIME INTERVAL TO KEEP THE AMOUNT OF SOLUBLE PHOSPHORUS IN THE SOIL SOLUTION AT A MINIMUM TO MINIMIZE THE MOVEMENT OF PHOSPHORUS IN SOILS. 3. SOURCES AND SOLUBILITIES OF ALUMINUM, IRON, AND CALCIUM IN THE SOILS WILL BE DETERMINED TO OBTAIN DATA FOR THESE CATIONS WHICH ARE INVOLVED IN PRECIPITATING PHOSPHORUS IN SOILS.

*PROJECT: 003455-EFFECT OF PHOTOCHEMICAL OXIDANTS ON A MIXED CONIFEROUS FOREST ECOSYSTEM
TASK =MC04 -000011 **EPA=R805410-03 ** (GRANT)
STARTING/ COMPLETION DATE : 07/77 - 01/81 : FY80

EPA OFFICER.: RG WILHOUR — EPA/ERL - CORVALLIS — 503-757-4634
INVESTIGATOR.: OC TAYLOR — UNIV OF CALIFORNIA — AIR POLL RES CTR
MILESTONES...: 05/80 -FINAL REPORT
PROGRAM ID...: (PE-C04) ECOL. PROC. AND EFFECTS
ORDIS CODES..: RECN-003455 SSIE-GMA 4230 3 EPA -R805410-03 ORD -RM10B30-4080
PE -C04
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: FIELD DATA FROM DIVERSE ECOSYSTEMS STRESS STUDIES CONDUCTED OVER SEVEN YEAR PERIOD WILL BE PROCESSED. SUB-MODELS WILL BE DEVELOPED, REFINED FOR DERIVING PREDICTIVE PHOTOCHEMICAL OXIDANT STRESS WITH A) FOREST MOISTURE FLOW, B) PONDEROSA INJURY DEVELOPMENT, C) TREE STEAM DIAMETER GROWTH AND HEIGHT GROWTH, D) PONDEROSA PINE ROOT DISEASE SPREAD, E) BARK BEETLE POPULATION DYNAMICS AND FOREST STAND MORTALITY, F) CONIFER STAND DEFOLIATION AND NEEDLE LITTERFALL, G) FOREST TREE NEEDLE LITTERFALL DECOMPOSITION, H) CONE AND SEED PRODUCTION RESPONSE, I) TREE SEEDLING ESTABLISHMENT AND J) INTEGRATED STAND COMPOSITION AND TREE POPULATION DYNAMICS. RESULTS WILL SUPPORT OXIDANT AIR QUALITY STANDARDS.

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*PROJECT: 005267-PLANNING AND CONDUCTING THE IX INTERNATIONAL CONGRESS OF PLANT
                 PROTECTION
                   TASK =W771E-000017 **EPA=R805417-03  ** (GRANT)
                   STARTING/ COMPLETION DATE : 10/77 - UNK    :    FY79
 EPA  OFFICER.: KJ HOOD                     EPA/OEPER- DAA
 INVESTIGATOR.: W  TWEEDY                   INTERNAT. CONGRESS OF PLANT.          202-426-2317
 MILESTONES...: 00/00 -COMPLETION OF PROGRAM AND PUBLICATION OF PROCEEDINGS       GREENSBORO              NC 27409
 PROGRAM ID...: (PE-771 )            INTEGRATED PESTICIDE MANAGEMENT
 MANDATE......: 10-06      FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
                20-34      DAA FOR PESTICIDE PROGRAMS
 CURR. RESULTS: SOME 900 PAPERS HAVE BEEN SUBMITTED FOR THE
                CONGRESS WHICH TAKE PLACE AUGUST 13-17, 1979.
 ORDIS CODES..: RECN-005267          SSIE-GMA  4801 2      EPA -R805417-03       ORD -RW10B30-5079
                LABN-X751-07         PE  -771
 PROJ STATUS..: PROJECT-COMPLETED    INFO-ORIGINAL         ENTERED - UNKNOWN     UPDATED-  OCT-DEC 79
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO PLAN AND CONDUCT THE IX INTERNATIONAL CONGRESS OF PLANT PROTECTION.


*PROJECT: 004725-WATER QUALITY AND BIOLOGICAL EFFECTS OF URBAN RUNOFF ON COYOTE CREEK

                   TASK =CC35 -S2T023 **EPA=R805418      ** (GRANT)
                   STARTING/ COMPLETION DATE : 11/77 - 04/80 :    FY80
 EPA  OFFICER.: DC AMMON                    EPA/MERL - CINC
 INVESTIGATOR.: J  SARTOR                   WOODWARD & CLYDE CNSLTS               FTS 8-340-6677
 MILESTONES...: 04/79 -INTERIM REPORT PUBLISHED                                   SAN FRANCISCO           CA 94111
                10/80 -FINAL REPORT PUBLISHED
 PROGRAM ID...: (PE-C35 )            WASTEWATER SYSTEMS CONTROL TECHNOLOGY
 MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
                30-99      URBAN RUNOFF IMPACTS
 ORDIS CODES..: RECN-004725          SSIE-GMA  6014 1      EPA -R805418          ORD -RC10B30-5080
                LABN-C822A-S2T023    PE  -C35
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: THE OBJECTIVE OF THIS STUDY IS TO QUANTIFY THE BIOLOGICAL AND WATER QUALITY CHANGES OF A SMALL
                  STREAM AS IT PASSES THROUGH THE SAN JOSE, CALIFORNIA URBAN AREA. THE SELECTED STREAM HAS NO
                  INDUSTRIAL OR MUNICIPAL POINT DISCHARGES AND THE EXPECTED STREAM QUALITY GRADIENT WILL BE A
                  FUNCTION ONLY OF NON-POINT URBAN RUNOFF. DETAILED FIELD MEASUREMENTS WILL BE PERIODICALLY CONDUCTED
                  OVER A PERIOD OF ONE YEAR BOTH UPSTREAM OF THE URBAN AREA AND AT SELECTED LOCATIONS WITHIN THE
                  URBAN AREA. ANOTHER TASK OF THE PROJECT IS TO MEASURE THE STORMWATER POLLUTANT REMOVAL
                  EFFECTIVENESS AND WATER QUALITY CHANGES THAT OCCUR WITHIN AN IDEALIZED CATCHBASIN. THIS PROJECT
                  WILL BE CONDUCTED IN CONJUNCTION WITH A CURRENT EPA SPONSORED DEMONSTRATION PROJECT IN SAN JOSE
                  TITLED "DEMONSTRATION OF NON POINT POLLUTANT ABATEMENT THROUGH IMPROVED STREET CLEANING PRACTICES".
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•PROJECT: 002196-POLYNUCLEAR AROMATIC COMPOUNDS - SYNTHESIS AND PURIFICATION

TASK =GC07 -000420 **EPA=R805419-03 ** (GRANT)
STARTING/ COMPLETION DATE : 05/74 - 05/80 : FY80

EPA OFFICER.: JE MEEKER EPA/ESRL - RTP FTS 8-629-3064
INVESTIGATOR.: EJ EISENBRAUN OKLAHOMA STATE UNIV ARTS & SCI/CHEM DEPT
L PAHLER OKLAHOMA STATE UNIV ARTS & SCI/CHEM DEPT

MILESTONES...: 05/75 -DELIVERY OF FIRST COMPOUNDS
05/76 -DELIVERY OF MORE COMPOUNDS
05/77 -DELIVERY OF MORE COMPOUNDS
01/78 -FINAL REPORT, 5-1/74, 5-1-77, GRANT 803097, EPA-600/2-78-006
05/78 -DELIVERY OF MORE COMPOUNDS
05/79 -DELIVERY OF MORE COMPOUNDS
05/80 -DELIVERY OF MORE COMPOUNDS
05/80 -FINAL REPORT

PROGRAM ID...: (PE-C07) CHARAC. & MEASUREMENT METHODS DEVEL - AIR

MANDATE.......: 10-02 CLEAN AIR ACT
10-03 TOXIC SUBSTANCES CONTROL ACT

CURR. RESULTS: SYNTHESIS AND/OR PURIFICATION OF 27 COMPOUNDS ACCOMPLISHED.

ORDIS CODES..: RECN-002196 SSIE-GMA 3770 3 EPA -R805419-03 ORD -RG10B30-1080
LABN-G712B-BB-005 PE -C07

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE SYNTHESIS AND/OR PURIFICATION OF A GROUP OF POLYNUCLEAR AROMATIC (PNA) HYDROCARBONS COMMONLY FOUND AS POLLUTANTS IN THE ENVIRONMENT ARE DESCRIBED. THESE HYDROCARBONS ARE TO BE SYNTHESIZED AND PURIFIED IN 10 G. QUANTITIES WITH A PURITY GOAL OF 99.9%. APPROACH: SYNTHESIS AND PURIFICATION IS CONSIDERED A CONTINUOUS PROCESS WHICH IS MOST EFFICIENT WHEN MORE THAN ONE HYDROCARBON IS UNDER STUDY AT THE SAME TIME. WE LIKE TO KEEP SOMETHING GOING AT EACH PHASE SO THAT EQUIPMENT BOTTLENECKS DO NOT DEVELOP. EXPLORATORY STUDIES ARE CONDUCTED TO DETERMINE WHETHER A REACTION SEQUENCE WILL PROVIDE THE DESIRED HYDROCARBON AND TO OBTAIN A SAMPLE FOR PURITY STUDIES. THIS INFORMATION IS REQUIRED FOR ESTIMATION OF THE SYNTHESIS SCALE NEEDED TO PRODUCE ENOUGH HYDROCARBON FOR PURIFICATION.

*PROJECT: 002564-SKELETAL VARIANTS AS TERATOGEN INDICATORS

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                 TASK =H615A-007506 **EPA=R805420      ** (GRANT)
                 STARTING/ COMPLETION DATE : 10/77 - 09/80 :   FY78
EPA  OFFICER.: N  CHERNOFF              EPA/HERL - RTP
INVESTIGATOR.: S  BECK                  WHEATON COLLEGE                 FTS 8-629-2781
MILESTONES...: 03/78 -TEST DECAMETHRINE FOR PROD. OF SKELETAL VARIANTS  SCH OF LIBERAL ARTS
               06/78 -TEST MANEB FOR PRODUCTION OF SKELETAL VARIANTS
               08/78 -INITIATE TESTS ON KNOWN TERATOGENS
PROGRAM ID...: (PE-615 )            HEALTH EFFECTS- PESTICIDES
FINAL OUTPUT.: PUBLICATION IN OPEN LITERATURE.
MANDATE......: 30-99      TERATOLOGY
CURR. RESULTS: OF 85 VARIENTS EXAMINED, 53 SHOW COMPOUND-INDUCED
               VARIATION IN MANEB-TREATED ANIMALS
ORDIS CODES..: RECN-002564          SSIE-GMA  5166      EPA -R805420        ORD -RH10B30-3078
               LABN-H629A-8927      PE  -615
PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL       ENTERED - UNKNOWN   UPDATED-  OCT-DEC 77
               CATEGORY-RESEARCH    ACCESS-PUBLIC
ABSTRACT.....: THE OBJECTIVES ARE TO EVALUATE SKELETAL VARIANTS INDEX OF FETOTOXICITY AND TO EVALUATE EFFECTS OF
               PESTICIDES ON FETAL SKELETON. THE FINAL OUTPUT WILL BE A PUBLICATION IN THE OPEN LITERATURE.
               ALTHOUGH DATA ANALYSIS IS NOT COMPLETE IT APPEARS THAT OF 85 VARIANTS EXAMINED, SOME 53 HAVE SHOWN
               COMPOUND-INDUCED VARIATION IN MANEB-TREATED ANIMALS.
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*PROJECT: 005262-DEVELOPMENT OF PEST MANAGEMENT STRATEGIES FOR SOIL INSECTS ON CORN

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                 TASK =W771 -000012 **EPA=R805429-03  ** (GRANT)
                 STARTING/ COMPLETION DATE : 10/77 - 10/81 :   FY79
EPA  OFFICER.: KJ HOOD                  EPA/OEPER- DAA
INVESTIGATOR.: ML FAIRCHILD             UNIV OF MISSOURI                202-426-2317
MILESTONES...: 00/00 -3 QUARTERLY REPORTS AND ANNUAL REPORTS EACH YEAR  DEPT. OF ENTOMOLOGY
PROGRAM ID...: (PE-771 )            INTEGRATED PESTICIDE MANAGEMENT
MANDATE......: 10-06      FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
               20-34      DAA FOR PESTICIDE PROGRAMS
CURR. RESULTS: DETECTION OF POPULATIONS HAS IMPROVED BUT STILL
               LACKS PRECISION. NEW TRAPPING METHODS USING PHEROMONES
               HAS BEEN HIGHLY EVALUATED. CORN ROOT AND PLANT
               MODELS HAVE BEEN NEARLY COMPLETED. ECONOMIC
               AND MANAGEMENT MODELS ARE BEING STRUCTURED AND
               ADJUSTED.
ORDIS CODES..: RECN-005262          SSIE-GMA  4799 2    EPA -R805429-03     ORD -RW10B30-5079
               LABN-X617-08         PE  -771
PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL       ENTERED - UNKNOWN   UPDATED-  OCT-DEC 79
               CATEGORY-RESEARCH    ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE RESEARCH SEEKS TO IMPROVE ABILITY TO DETECT POTENTIALLY DAMAGING POPULATIONS OF SOIL
               ARTHROPODS (CUTWORMS, CORN ROOTWORM, AND WIREWORMS) TO REFINE SOIL ARTHROPOD POPULATION ASSESSMENT
               TECHNIQUES. REFINE SOIL ARTHROPOD PLANT DAMAGE THRESHOLDS; IDENTIFY, EVALUATE, AND OPTIMIZE CONTROL
               ALTERNATIVES; UTILIZE MODELING TECHNIQUES TO ASSESS CORN INSECT POPULATIONS, AND TO DEVELOP CONTROL
               STRATEGIES. APPROACH: THE WORK IS DONE BY A SIX STATE CONSORTIUM WHICH TREATS THE PROBLEMS
               THROUGHOUT THE MAJOR CORN GROWING STATES. THE WORK INCLUDES FIELD AND LABORATORY STUDY, WITH THE
               AIM OF DEVELOPING MODELS FOR USE IN DAY-TO-DAY PEST MANAGEMENT DECISIONS.
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*PROJECT: 002831-BIOSYNTHESIS OF N-NITROSO COMPOUNDS FROM TRACE LEVEL PRECURSORS

TASK =J776D-000005 **EPA=R805431-02 ** (GRANT)
STARTING/ COMPLETION DATE : 10/76 - 03/80 : FY79

EPA OFFICER.: JA SANTOLUCITO — EPA/EMSL - LAS VEGAS — 702-798-2205
INVESTIGATOR.: SS EPSTEIN — UNIV OF ILLINOIS — MED CTR/ENV HLTH SCI
ZM IQBAL — UNIV OF ILLINOIS — MED CTR/ENV HLTH SCI

MILESTONES...: 09/78 -REPORT ON ANALYTICAL METHOD FOR DETECTION OF NITROSAMINES
09/79 -REPORT ON BIOSYNTHESIS OF DIMETHYL NITROSAMINE IN THE MOUSE
12/79 -REPORT ON A STRATEGY FOR CARCINOGEN PRECURSOR EXPOSURE MONITORING

PROGRAM ID...: (PE-776) PROGRAM ELEMENT 776

FINAL OUTPUT.: ASSESSMENT OF RATES OF IN-VIVO BIOSYNTHESES OF COMPOUNDS FROM ENVIRONMENTAL LEVELS OF PRECURSORS.

MANDATE......: 30-99 EXPOSURE MONITORING

CURR. RESULTS: COMPILATION OF DATA ON IN VIVO NITROSATION.
IMPROVEMENTS COMPLETED ON NITROSAMINE ANALYTICAL METHOD.
ESTABLISHED IN VIVO NITROSATION FROM NO2 AT 25 PPM.

ORDIS CODES..: RECN-002831 — SSIE-GMA 4082 2 — EPA -R805431-02 — ORD -RJ10B30-3079
LABN-J775D-05 — PE -776

PROJ STATUS..: PROJECT-COMPLETED — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- JUL-SEP 79
CATEGORY-RESEARCH — ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE/APPROACH: TO INVESTIGATE THE BIOSYNTHESIS OF N-NITROSO COMPOUNDS (BOTH VOLATILE AND NONVOLATILE) FROM TRACE LEVELS OF THEIR AMINE AND NITROSATING PRECURSORS USING THERMAL ENERGY ANALYZER TECHNIQUES WITH FROZEN ANIMAL PROCEDURES. FINAL OUTPUT: ASSESSMENT OF THE RATES OF IN-VIVO BIOSYNTHESIS OF N-NITROSO COMPOUNDS FROM ENVIRONMENTAL LEVELS OF PRECURSORS; CATALYTIC AND INHIBITORY EFFECTS OF DIFFERENT AGENTS ON THE NITROSAMINE BIOSYNTHESIS; ANALYTICAL METHODS FOR DETECTING LOW LEVELS OF NITROSAMINES.

*PROJECT: 003054-FLUVIAL TRANSPORT OF SEDIMENTS AND NUTRIENTS FROM NONPOINT SOURCES

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                TASK =KC28 -000445 **EPA=R805436      ** (GRANT)
                STARTING/ COMPLETION DATE : 10/77 - 03/80 :  FY80
EPA  OFFICER.: TO BARNWELL            EPA/ERL - ATHENS               FTS 8-250-3175
INVESTIGATOR.: DB BAKER               HEIDELBERG COLLEGE             RIBER STUDIES LAB.
               FH VERHOFF             WEST VIRGINIA UNIV             CHEM ENG DEPT
MILESTONES...: 10/78 -INTERIM REPORT ON DATA COLLECTION
               03/80 -FINAL REPORT ON DATA COLLECTION
PROGRAM ID...: (PE-C28 )          TRANS. AND FATE  - WATER QUALITY
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
               20-R05    EPA REGION V
CURR. RESULTS: DATA COLLECTION ENDED.  DATA FROM 4 OR 10 STATIONS
               RECEIVED AND PLACED IN STORET DATA BASE.  REMAINING DATA
               EXPECTED SHORTLY.
ORDIS CODES..: RECN-003054         SSIE-GMA  3992 3      EPA -R805436          ORD -RK10B30-5080
               LABN-K609A-445      PE  -C28
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
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ABSTRACT.....: THE OBJECTIVES OF THIS STUDY ARE TO INVESTIGATE THE TRANSPORT AND PROCESSING OF NUTRIENTS AND SEDIMENTS AS THEY MOVE THROUGH THE DRAINAGE NETWORK OF A LARGE AGRICULTURAL RIVER BASIN. THE STUDY WILL UTILIZE A "NESTED" SET OF NINE STREAM GAGING/SAMPLING STATIONS IN THE SANDUSKY RIVER BASIN IN OHIO. DETAILED HYDROGRAPHS, SEDIMENT GRAPHS AND CHEMOGRAPHS WILL BE OBTAINED FOR ALL STORM EVENTS DURING THE STUDY PERIOD. MASS BALANCE COMPUTATIONS WILL BE MADE FOR WATER, SEDIMENT AND NUTRIENTS AS THEY MOVE THROUGH THE NETWORK. THE WAVE FRONT MOVEMENT OF THE HYDROGRAPH WILL BE USED TO SEPARATE SEDIMENT FROM SHEET EROSION FROM RESUSPENDED SEDIMENT. NUTRIENT MASS BALANCES WILL BE USED TO STUDY PROCESSING AND DELIVERY RATIOS ALONG THE RIVER. DELIVERY OF PHOSPHORUS FROM INLAND POINT SOURCES TO LAKE ERIE WILL ALSO BE STUDIED AS WELL AS THE EXTENT OF ANNUAL VARIABILITY IN NUTRIENT AND SEDIMENT YIELDS FROM AGRICULTURAL WATERSHEDS. INDIVIDUAL WATERSHED YIELD WILL BE CORRELATED WITH DETAILED LAND USE/LAND CAPABILITY DATA.

*PROJECT: 003335-AN EVALUATION OF FILTER FEEDING FISHES FOR REMOVING EXCESSIVE NUTRIENTS AND ALGAE FROM WASTEWATER
TASK =LC35 -000048 **EPA=R805453-01 ** (GRANT)
STARTING/ COMPLETION DATE : 11/77 - 04/80 : FY80

EPA OFFICER.: WR DUFFER — EPA/ERL - ADA — FTS-8-743-2243
INVESTIGATOR.: S HENDERSON — STATE GAME/FISH COMM — LITTLE ROCK — AR 72201
MILESTONES...: 09/78 -COMPLETE CONSTRUCTION AND RENOVATION ACTIVITIES
04/80 -FINAL REPORT ON REMOVAL OF POLLUTANTS BY FILTER FEEDING FISH
PROGRAM ID...: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
FINAL OUTPUT.: FINAL PROJECT REPORT ON REMOVAL OF POLLUTANTS BY FILTER FEEDING FISH.
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: FILTER FEEEDING FISH SPECIES HAVE BEEN EVALUATED IN TERMS OF WASTEWATER TREATMENT EFFECTIVENESS AND PRODUCTION RATES PREMINARY RESULTS WERE PRESENTED AT THE SEMINAR ON AQUACULTURE SYSTEMS FOR WASTEWATER TREATMENT CONDUCTED AT UNIV OF CALIF. DAVIS ON SEPT. 11,12, 1979
ORDIS CODES..: RECN-003335 SSIE-GMA 5314 2 EPA -R805453-01 ORD -RL10B30-1080
LABN-L822C-062 PE -C35
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE PRIMARY OBJECTIVE IS TO DETERMINE THE EFFECTIVENESS OF A POLYCULTURE OF FISHES TO REDUCE NUTRIENTS AND ALGAE IN WASTEWATER. THE KEY SPECIES TO BE USED ARE HYPOPTHALMICHTHYES MOLITRIX AND ARISTICHTHYES NOBILIS: BOTH ARE FILTER FEEDERS. THIS WILL BE ACCOMPLISHED BY STOCKING THE FISH AT VARIOUS RATES INTO A SIX POND SERIES OF SEWAGE OXIDATION LAGOONS AT THE STATE HOSPITAL AT BENTON, ARKANSAS. PARAMETERS TO BE MONITORED AT THE OUTFLOW OF EACH POND ARE: DISSOLVED OXYGEN, BIOCHEMICAL OXYGEN DEMAND, PH, CARBON DIOXIDE, TURBIDITY, CONDUCTIVITY, FECAL COLIFORMS, SUSPENDED SOLIDS, NUTRIENTS, TEMPERATURE, FLOW RATE, AND PLANKTON POPULATIONS. METHODS OF HARVESTING FISH FROM SEWAGE LAGOONS WILL ALSO BE INVESTIGATED.PRELIMINARY STUDIES IN SEWAGE LAGOONS AND AQUACULTURE PONDS HAVE SHOWN THAT THE PRESENCE OF THESE FISHES DOES CAUSE A REDUCTION OF NUTRIENTS AND A SIGNIFICANT IMPACT ON PLANKTON POPULATIONS. THE PURPOSE OF THIS INVESTIGATION IS TO DETERMINE PROPER STOCKING RATES AND BOD LOADING RATES FOR LAGOONS TO AFFECT MAXIMUM TREATMENT OF THE EFFLUENT.

·PROJECT: 005266-PESTICIDE USE REDUCTION THROUGH INTEGRATED CONTROL PROCEDURES ON MUSK THISTLE (CARDUUS NUTANS)
TASK =W771 -000016 ··EPA=R805455-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 09/77 - 09/80 : FY79

EPA OFFICER.: KJ HOOD EPA/OEPER- DAA 202-426-2317
INVESTIGATOR.: EA MARTINKO UNIV OF KANSAS CENTER FOR RESEARCH INC.
MILESTONES...: 00/00 -ANNUAL REPORTS; QUARTERLY REPORTS
PROGRAM ID...: (PE-771) INTEGRATED PESTICIDE MANAGEMENT
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
20-34 DAA FOR PESTICIDE PROGRAMS
CURR. RESULTS: THE PLANT HAS UNUSUAL OVER-WINTER QUALITIES, POSSIBLE BASED UPON GENETIC FACTORS; THIS INFORMATION HAS PERMITTED IDENTIFICATION OF SENSITIVE PARTS OF THE PLANT SYCLE WHEN SPRAY CONTROL IS VERY EFFECTIVE. SEVERAL INSECT PREDATORS HAVE BEEN IDENTIFIED.
ORDIS CODES..: RECN-005266 SSIE-GMA 4802 2 EPA -R805455-01 ORD -RW10B30-5079
LABN-X617-03 PE -771
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: TO GAIN A BETTER UNDERSTANDING OF MUSK THISTLE BIOLOGY AND ITS INTERACTIONS WITH THE ENVIRONMENT, TO DEVELOP PROCEDURES TO DETECT THISTLE POPULATIONS USING REMOTE SENSING, TO DEVELOP CONTROL STRATEGIES, AND TO DETERMINE THE BASIC BOTANY OF THE PLANT THAT ENABLES IT TO EXTEND AND HOLD ITS RANGE. APPROACH: FIELD STUDIES ARE CONDUCTED IN KANSAS, NEBRASKA AND COLORADO. LAB WORK IS DONE AT KANSAS UNIVERSITY. BASIC BOTANY OF THE PLANT AND ITS ADAPTATION TO THE ENVIRONMENT IS BEING DETERMINED. REMOTE SENSING TECHNIQUES ARE BEING DEVELOPED AND VARIFIED ON THE RATE OF INFESTATION AND SPREAD OF THE THISTLE. NATURAL PREDATORS AND SPRAY CONTROL IS BEING STUDIED.

*PROJECT: 001991-LASER RAMAN MONITORING OF SULFURIC ACID, SULFATES, SULFUR TRIOXIDE, AND SULFUR DIOXIDE IN STACK EMISSIONS
TASK =G833D-EB-016 --*EPA=R805458-02 -* (GRANT)
STARTING/ COMPLETION DATE : 10/77 - 03/80 : FY79

EPA OFFICER.: JS NADER — EPA/ESRL - RTP — 919-541-3085
INVESTIGATOR.: R CHANG — YALE UNIV — DEPT OF ENG & APPLIED SCI
MILESTONES...: 03/79 -PROGRESS REPORT
03/80 -FINAL REPORT
PROGRAM ID...: (PE-833) MEASURE. SYS & INSTR. DEVEL FOR ENGIN.
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: PROGRESS MADE IN OPTIMIZATION OF INSTRUMENTATION IN SEVERAL AREAS RELATING TO MEASUREMENT OF NECESSARY RAMAN SCATTERING CROSS SECTION, LINEWIDTH, AND LINESHIFT.
ORDIS CODES..: RECN-001991 SSIE-GMA 5200 1 EPA -R805458-02 ORD -RG10830-1079
LABN-G625B-EB-016 PE -833
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO OBTAIN ABSOLUTE RAMAN CROSS SECTIONS OF GASEOUS H2SO4 AND SO3 AND THEIR RAMAN SPECTRAL LINEWIDTH AND LINESHIFTS AND TO DEMONSTRATE IN THE LABORATORY THE VIABILITY OF RAMAN SPECTROSCOPY IN DISTINGUISHING THE MULTIPHASES OF SULFUR OXIDES. APPROACH: CALIBRATION OF H2SO4 CONCENTRATIONS FOR CROSS SECTION MEASUREMENT WILL BE ACCOMPLISHED BY DETERMINING THE PARTIAL PRESSURE OF H2SO4 AS THE DIFFERENCE BETWEEN TOTAL PRESSURE AND THE SUM OF PARTIAL PRESSURES OF SO3 AND H2O. RESULTS TO DATE: RAMAN SCATTER WAVELENGTHS FOR H2SO4 HAVE BEEN ESTABLISHED AT 1200/CM AND 825/CM. GASES SUCH AS SO3, NO, CO2, AND SO2 DO NOT INTERFERE. NO2 MAY INTERFERE DEPENDING UPON ITS CONCENTRATION RELATIVE TO H2SO4. PROGRESS HAS BEEN MADE IN OPTIMIZATION OF INSTRUMENTATION IN SEVERAL AREAS RELATING TO THE MEASUREMENT OF THE NECESSARY RAMAN SCATTERING CROSS SECTION, LINEWIDTH, AND LINESHIFT.

*PROJECT: 003891-RIVULUS MARMORATUS - AN INVESTIGATION OF ITS POTENTIAL AS A CANCER RESEARCH AND CHEMICAL CARCINOGEN SCREENING ORGANISM
TASK =OC2N -Q00017 **EPA=R805469-01 ** (GRANT)
STARTING/ COMPLETION DATE : 09/77 - 09/80 : FY80

EPA OFFICER.: WP DAVIS   EPA/ERL -GULF BREEZE
INVESTIGATOR.: CC KOENIG   COLLEGE OF CHARLESTON   CML (803) 559-0371
MILESTONES...: 09/79 -REPORT   BRICE MAR BIOL LAB
PROGRAM ID...: (PE-C2N)   TRANS.FATE. AND EFFECTS OF ENERGY REL POLLUTANTS
MANDATE......: 30-99   GENETICS. BIOASSAY
CURR. RESULTS: HUNDREDS OF INDIVIDUALS AND EXPOSURES TO 5 SELECTED TEST SUBSTANCES UNDERWAY. SISTER-CHROMATID EXCHANGE TESTED AND SUITABLE FISHES BEING SELECTED. TISSUE CULTURE TECHNIQUES BEING TESTED.
ORDIS CODES..: RECN-003891   SSIE-GMA 4123 3   EPA -R805469-01   ORD -RQ10B30-3080
LABN-Q625F-Q017   PE -C2N
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DEVELOPMENT AND TESTING OF METHODOLOGY TO USE GENETICALLY DEFINED STRAINS OF MARINE FISH AS LABORATORY AND FIELD EXPOSURE TO SCREEN POTENTIAL ENVIRONMENTAL MUTAGENIC, TERATOGENIC AND CARCINOGENIC COMPOUNDS. APPROACH: USING CONTROLLED CULTURES OF ISOGENIC HOMOZYGOUS CLONES OF A NATURALLY HERMAPHRODITIC FISH SPECIES, ESTABLISH BIOASSAY PROCEDURES FOR COMPOUNDS WITH MUTAGENIC, TERATOGENIC, AND CARCINOGENIC PROPERTIES. SECONDLY, TO PERFECT A SISTER-CHROMATID-EXCHANGE TECHNIQUE FOR SELECTED MARINE FISH SPECIES FOR IN VITRO, IN VIVO, TESTS.

*PROJECT: 005995-METHODOLOGIES FOR UTILIZATION OF ENVIRONMENTAL-IMPACT-ASSESSMENT DATA
TASK =F825Q-793340 **EPA=R805476 ** (GRANT)
STARTING/ COMPLETION DATE : 09/77 - 09/81 : FY79

EPA OFFICER.: CT RIPBERGER   EPA/IERL - RTP
INVESTIGATOR.: LR BABCOCK   UNIV OF ILLINOIS   FTS 8-629-2911
MILESTONES...: 10/78 -COMPLETE RESEARCH RELATED TO HEALTH EFFECT LINKAGES   SCHOOL OF ENGINEERING
10/79 -COMPLETE RESEARCH RELATED TO TRANSPORT-TRANSFORMATION
10/80 -COMPLETE INTEGRATION STUDIES
PROGRAM ID...: (PE-825)   FUEL PROCESSING ,PREPARATION ADV COMBUSTION
MANDATE......: 10-01   FEDERAL WATER POLLUTION CONTROL ACT
10-02   CLEAN AIR ACT
10-13   SOLID WASTE DISPOSAL ACT
ORDIS CODES..: RECN-005995   SSIE-GMA 4132 2   EPA -R805476   ORD -RF10B30-1079
PE -825
PROJ STATUS..: PROJECT-ACTIVE   INFO-ORIGINAL   ENTERED - 06-28-80   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO DEFINE METHODOLOGICAL APPROACHES FOR USE WITHIN THE EPA WHICH WOULD FACILITATE THE IDENTIFICATION OF HAZARDS AND SETTING OF STANDARDS AND CONTROL PRIORITIES. APPROACH: DEFINE METHODOLOGY OF USE BY HEALTH-EFFECTS PERSONNEL AND OTHERS OF ENVIRONMENTAL IMPACT AND ASSESSMENT DATA TO GENERATE MEANINGFUL CAUSE-EFFECT RESULTS.

*PROJECT: 001076-PHAGE RESISTANCE AS A MEANS OF SEPARATING HUMAN AND ANIMAL E. COLI
STRAINS AND DEFINING COLONIZATION POTENTIALS
TASK =DC27 -2B0007 **EPA=R805488 ** (GRANT)
STARTING/ COMPLETION DATE : 09/77 - 09/80 : FY80
EPA OFFICER.: AP DUFOUR EPA/HERL - CINC FTS 8-838-4843
INVESTIGATOR.: PS COHEN UNIV OF RHODE ISLAND DEPT OF MICROBIOL/WOODWARD
MILESTONES...: 03/80 -INTERIM REPORT
09/80 -PHAGE AND ANTIBIOTIC RESISTANCE PATTERN DEFINED FOR DISTINGUISHING HUMAN FROM N
PROGRAM ID...: (PE-C27) HEALTH EFFECTS - WATER QUALITY
FINAL OUTPUT.: PHAGE AND ANTIBIOTIC RESISTANCE PATTERN DEFINED FOR
DISTINGUISHING HUMAN FROM NON-HUMAN E. COLI STRAINS
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-11 DAA FOR WATER PLANNING AND STANDARDS
CURR. RESULTS: E. COLI BACTERIOPHAGE RESISTANCE PATTERNS DETERMINED FOR
E. COLI STRAINS FROM ENVIRONMENTAL AND ANIMAL ISOLATES
HAVE BEEN CORRELATED WITH SOURCE OF POLLUTION
(I.E., HUMAN VS. NON-HUMAN).
ORDIS CODES..: RECN-001076 SSIE-GMA 5401 2 EPA -R805488 ORD -RD10B30-5080
LABN-D607C-013 PE -C27
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROPOSAL IS TO DETERMINE A COMBINED PHAGE AND ANTIBIOTIC RESISTANCE PATTERN WHICH CAN BE USED TO DISTINGUISH THE SOURCE OF ESCHERICHIA COLI STRAINS (I.E., HUMAN FROM NON-HUMAN). APPROACH: THE METHOD FOR DISTINGUISHING HUMAN FROM NON-HUMAN E. COLI STRAINS. IT IS ANTICIPATED THAT THIS CAPABILITY WILL AID IN DISCRIMINATING SOURCES OF POLLUTION, THEREBY ASSISTING IN ASSESSMENTS OF WASTEWATER TREATMENT REQUIREMENTS AND HUMAN HEALTH HAZARDS.

*PROJECT: 000273-ELECTROCHEMICAL TREATMENT OF SEAFOODS PROCESSING WASTEWATER

TASK =B610B-000627 **EPA=R805493-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/77 - 06/79 : FY79
EPA OFFICER.: HW THOMPSON EPA/IERL - CINC
INVESTIGATOR.: RD GRAY R C L INDUSTRIES INC GLOUCHESTER MA 01930
RD GRAY NEW ENGLAND FISH COMM NEW BEDFORD MA 02741
C LIU NEW ENGLAND FISH COMM NEW BEDFORD MA 02741
MILESTONES...: 06/80 -FINAL REPORT RECEIVED
PROGRAM ID...: (PE-610) INDUSTRIAL PROC. - WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-000273 SSIE-GMA 5218 1 EPA -R805493-01 ORD -RB10B30-1079
PE -610
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DETERMINE THE TECHNICAL AND ECONOMIC FEASIBILITY OF TREATING SEAFOODS PROCESSING WASTEWATERS BY ELECTROCHEMICAL COAGULATION/FLOTATION FOLLOWED BY SAND FILTRATION. THE SLUDGE REMOVED FROM THE FLOTATION CELL WILL BE EVALUATED FOR POSSIBLE UTILIZATION AS A PET FOOD, POULTRY FEED INGREDIENT, AND FERTILIZER. APPROACH: FOLLOWING DESIGN AND CONSTRUCTION, A MOBILE PILOT PLANT WILL BE OPERATED AT SEVEN SEAFOOD PROCESSING PLANTS. THE VARIETY OF SEAFOODS PROCESSED AT THESE PLANTS INCLUDES WHITING, HERRING, SHRIMP, FLOUNDER, COD, SCALLOP, CRAB, LOBSTER, AND SARDINE.

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*PROJECT: 003846-THE ECOLOGICAL IMPACT OF INTEGRATED CHEMICAL AND BIOLOGICAL AQUATIC WEED

                TASK =OC31 -Q00010 **EPA=R805497-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 06/78 - 07/81 :   FY80
  EPA  OFFICER.: GE WALSH                  EPA/ERL -GULF BREEZE              FTS-8-686-9011
  INVESTIGATOR.: JV SHIREMAN               SCH OF FOREST RES & CONSRV        UNIV OF FLORIDA
  MILESTONES...: 06/79 -ANNUAL REPORT ON FIELD STUDY
                 06/80 -ANNUAL REPORT ON BIOLOGICAL CONTROL
                 07/81 -REPORT
  PROGRAM ID...: (PE-C31 )          MARINE ECO EFFECTS  - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 10-99     L 95-217
  ORDIS CODES..: RECN-003846        SSIE-GMA  4945 2      EPA -R805497-01       ORD -RQ10B30-1080
                 LABN-Q608A-Q010    PE  -C31
  PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
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  ABSTRACT.....: OBJECTIVE: TO DETERMINE THE IMPACT OF CHEMICAL/BIOLOGICAL CONTROL IN THE FISHERY ENVIRONMENT, AND TO
                  ASCERTAIN THE MOST DESIRABLE BALANCE OF VEGETATION VERSUS OPEN WATER THAT WILL MAINTAIN DESIRABLE
                  WATER QUALITY, FISH GROWTH, AND REPRODUCTION. TO EVALUATE THE FEASIBILITY OF COMBINING CHEMICAL AND
                  BIOLOGICAL WEED CONTROL IN A NATURAL LAKE AND DETERMINE COST BENEFIT RATIOS, AND TO DETERMINE THE
                  EFFECTS OF DENSE SUBMERGED AQUATIC WEED GROWTH ON THE RECREATIONAL UTILIZATION AND FISH POPULATION
                  OF ORANGE LAKE, FLORIDA.
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•PROJECT: 003367-ON-FARM IMPROVEMENTS TO REDUCE SEDIMENT AND NUTRIENTS IN IRRIGATION RETURN FLOW
TASK =L770A-1-0045 ••EPA=R805527-01 •• (GRANT)
STARTING/ COMPLETION DATE : 10/77 - 03/81 : FY79

EPA OFFICER.:	JP LAW	EPA/ERL - ADA	FTS 8-743-2300
INVESTIGATOR.:	LG KING	WASHINGTON STATE UNIV	DEPT OF CIVIL & ENV ENGIN
	BL MCNEAL	WASHINGTON STATE UNIV	DEPT OF CIVIL & ENV ENGIN
	WH PIETSCH	WASHINGTON STATE UNIV	DEPT OF CIVIL & ENV ENGIN
	S MATULICH	WASHINGTON STATE UNIV	DEPT OF CIVIL & ENV ENGIN

MILESTONES...: 10/78 -ANNUAL REPORT
10/79 -ANNUAL REPORT
10/80 -ANNUAL REPORT
03/81 -FINAL REPORT

PROGRAM ID...: (PE-770) RENEWABLE RESOURCES -WATER QUALITY

MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT

CURR. RESULTS: PROJECT FIELD WORK IS PROGRESSING ACCORDING TO SCHEDULE. STRUCTURA IMPROVEMENTS ARE BEING INSTALLED FOR DATA COLLECTION DURING 1979-80 CROPPING SEASONS.

ORDIS CODES..: RECN-003367 SSIE-GMA 3824 2 EPA -R805527-01 ORD -RL10B30-1079
PE -770

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE OVERALL OBJECTIVES OF THIS PROJECT INCLUDE THE IMPLEMENTATION OF A PROGRAM FOR REDUCING THE NUTRIENT AND SEDIMENT DISCHARGES IN IRRIGATION RETURN FLOW FROM A WELL DEFINED SUBBASIN OF APPROXIMATELY 2,000 ACRES. THE PROJECT IS INTENDED TO PROVIDE A FRAMEWORK FOR IMPLEMENTATION OF 208 PLANS FOR IRRIGATED AGRICULTURE IN WASHINGTON. A HIGH DEGREE OF FARMER PARTICIPATION WILL BE OBTAINED BY PROVIDING COST SHARING FUNDS FOR CAPITAL IMPROVEMENTS ON INDIVIDUAL FARMS WITHIN THE SUBBASIN. TECHNICAL HELP WILL BE PROVIDED FOR CHANGE OF PRACTICES NOT INVOLVING CAPITAL IMPROVEMENTS. THE REDUCTION IN NUTRIENTS AND SEDIMENTS AFFECTED BY SPECIFIC PRACTICE CHANGES WILL BE QUANTIFIED. THE BEST FARMING PRACTICES WILL BE IDENTIFIED ON A COST EFFECTIVENESS BASIS. INFORMATION CONCERNING PROGRESS OF THE PROJECT WILL BE DISSEMINATED THROUGH COUNTY EXTENSION AGENTS, IRRIGATION AND CONSERVATION DISTRICTS, ANNUAL FIELD DAYS ON THE PROJECT SITE, PERIODIC AND FINAL REPORTS TO THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY AND THE U. S. ENVIRONMENTAL PROTECTION AGENCY.

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*PROJECT: 001902-CHEMICAL REACTIONS OF ATMOSPHERIC HALOGENATED SPECIES

                TASK =GC1V -000517 **EPA=R805532-02  ** (GRANT)
                STARTING/ COMPLETION DATE : 08/77 - 09/80 :   FY80
 EPA  OFFICER.: MC DODGE                 EPA/ESRL - RTP                FTS-8-629-2374
 INVESTIGATOR.: MJ MOLINA                UNIV OF CALIFORNIA            CHEM DEPT
                FS ROWLAND               UNIV OF CALIFORNIA            CHEM DEPT
 MILESTONES...: 10/81 -FINAL REPORT
 PROGRAM ID...: (PE-C1V )           TRANSPORT AND FATE  - TOXICS
 MANDATE......: 10-02     CLEAN AIR ACT
 CURR. RESULTS: ABSORPTION CROSS SECTIONS OBTAINED FOR CBR2F2, CBRC1F2,
                AND CBRF2CBRF2.
 ORDIS CODES..: RECN-001902         SSIE-GMA  3882 3     EPA -R805532-02      ORD -RG10B30-1080
                LABN-G760C-DA-007   PE  -C1V
 PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  06-28-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS RESEARCH PROGRAM IS TO BETTER THE UNDERSTANDING OF THE
                 TRANSFORMATION AND REMOVAL OF HALOGENATED POLLUTANTS IN THE ENVIRONMENT. APPROACH: UV ABSORPTION
                 CROSS SECTIONS WILL BE OBTAINED FOR SELECTED BROMINATED COMPOUNDS. FTIR STUDIES OF SEMI-STABLE
                 MOLECULES OF ATMOSPHERIC SIGNIFICANCE WILL CONDUCTED, AND FIELD MEASUREMENTS OF METHYLCHLOROFORM
                 WILL BE MADE.

*PROJECT: 006033-REDUCTION OF POLLUTANT FORMATION IN COAL PARTICLE AND LIQUID FUEL SPRAY
                FLAMES
                 TASK =F829L-792390 **EPA=R805552     ** (GRANT)
                 STARTING/ COMPLETION DATE : 09/77 - 09/81 :   FY79
 EPA  OFFICER.: WS LANIER                EPA/IERL - RTP                FTS 8-629-2432
 INVESTIGATOR.: JM BEER                  MIT                           ELEC ENG DEPT
 MILESTONES...: 10/77 -INITIATE GRANT
                10/78 -IDENTIFY COAL AND OIL PYROLYSIS MECHANISMS
                10/80 -COMPLETE DOCUMENTATION
 PROGRAM ID...: (PE-829 )           NITROGEN OXIDE CONTROL -ENERGY
 MANDATE......: 10-02     CLEAN AIR ACT
 CURR. RESULTS: EXPERIMENTS ON A MONTANA LIGNITE CHAR (44-53UM SIZE CUT, DEVOLATILIZED
                TO ASSYMPTOTIC WEIGHT LOSS AT 17 K ) DEMONSTRATION EFFECTIVELY NO
                ENHANCEMENT (+-15%) OF THE NO/CHAR REACTION BY 1.5% CO FOR THE
                TEMPERATURE RANGE 1300-1600 K.
 ORDIS CODES..: RECN-006033         SSIE-GMA  4632 2     EPA -R805552         ORD -RF10B30-1079
                PE  -829
 PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL        ENTERED - 06-28-80   UPDATED-  06-28-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: THE PURPOSE OF THIS PROJECT IS TO OBTAIN INFORMATION ON THE KINETICS OF COAL AND
                 HEAVY-OIL COMBUSTION. THE DATA WILL BE GENERATED ON PARTICLES AND DROPLETS IN A LAMINAR FURNACE AND
                 IN A PLUG FLOW SPRAY COMBUSTOR. SPECIAL ATTENTION WILL BE PAID TO HOW ATOMIZER-FUEL COMBINATIONS
                 INFLUENCE SPRAY CHARACTERISTICS.
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U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE

EPA R805563-02.

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Human Epithelial Cell Metabolic Activation Systems for Use with Human Cell Mutagenesis

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

J. Justin McCormick, PH.D., Principal Investigator, Associate Professor and Co-Director of the Carcinogenesis Laboratory, College of Osteopathic Medicine

Veronica M. Maher, PH.D., Co-Principal Investigator, Associate Professor and Co-Director of Carcinogenesis Laboratory, College of Osteopathic Medicine

NAME AND ADDRESS OF APPLICANT INSTITUTION

Carcinogenesis Laboratory, Michigan State University, College of Osteopathic Medicine, East Lansing, Michigan 48824

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The need to develop ever more adequate test systems which can reliably determine the possible toxic mutagenic, teratogenic and/or carcinogenic effects of exposure of the human population to chemicals in the environment is becoming more and more evident. It is, of course, not possible to carry out such testing in humans, and therefore, information on risk estimates has to be extrapolated to man from results obtained in test systems which utilizemicroorganisms, mammalian cells in culture, or animals. Mammalian cells in culture have come into increasing importance in biological testing because they retain many of the characteristics of the target cells at risk and, yet, can be grown into very large populations and analyzed and characterized by a wide range of biochemical and genetic techniques that are not possible with whole animals. During the past several years, we have developed a quantitative system for measuring the cytotoxic and mutagenic effect of radiation and direct-acting chemicals in diploid human skin fibroblasts in culture and have shown that these effects are directly related to the capacity of human cells to repair damage to DNA. Since the human population is so far more likely to be exposed to parent compounds than to direct-acting model compounds, we propose to extend the capability of the diploid human fibroblast cell mutagenesis system to include parent compounds, or mixtures of chemicals, which require metabolic activation by coupling it with cell-mediated activation systems. Human epithelial cells as well as human organs and tissues will serve as our primary sources of metabolic activation. In addition, we will compare sources derived from non-primate mammals. To detect and characterize the metabolic activation of parent compounds, we will: (1) quantitate their cytotoxic effect by measuring cells' loss of ability to clone, (2) quantitate the induction of mutations using several markers and (3) determine the number and kinds of adducts formed on DNA by covalent attachment of chemical residues. We will use several biochemical techniques to confirm that the cells of the feeder layer are metabolically active.

•PROJECT: 001767-MODELING OF ATMOSPHERIC FLOWS AND POLLUTANT DISPERSAL OVER AND AROUND HILLS AND BUILDINGS
TASK =G603A-AB-012 ••EPA=R805595-03 •• (GRANT)
STARTING/ COMPLETION DATE : 09/77 - 03/81 : FY79

EPA OFFICER..: WH SNYDER — EPA/ESRL - RTP — FTS 8-629-2811
INVESTIGATOR.: SP ARYA — NORTH CAROLINA STATE UNIV — DEPT OF GEOSCI
MILESTONES....: 09/78 -PROJECT CONTINUATION
09/79 -PROJECT CONTINUATION
03/81 - FINAL REPORT DETAILING RESULTS OF FLUID MODELING STUDIES AND MATHEMATICAL MODE
PROGRAM ID...: (PE-603) TRANS. AND FATE -AIR
FINAL OUTPUT.: REPORT DETAILING RESULTS OF FLUID MODELING STUDIES AND MATHEMATICAL MODELS DEVELOPMENT
MANDATE......: 10-02 CLEAN AIR ACT
20-20 AA FOR AIR AND WASTE MANAGEMENT
20-23 DAA FOR AIR QUALITY PLANNING AND STANDARDS
CURR. RESULTS: RESULTS INCLUDE ADVANCES IN WIND TUNNEL INSTRUMENTATION, ATMOSPHERIC BOUNDARY LAYER SIMULATION, AND NUMERICAL MODELING. SEVERAL REPORTS PUBLISHED AND OTHERS IN PRESS.
ORDIS CODES..: RECN-001767 — SSIE-GMA 4476 2 — EPA -R805595-03 — ORD -RG10B30-5079
LABN-G603A-AB-34 — PE -603
PROJ STATUS..: ACTIVE -MULTIYEAR — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- JAN-MAR 80
CATEGORY-RESEARCH — ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROJECT IS TO CONDUCT BASIC FLUID MODELING AND THEORETICAL STUDIES OF THE FLOW AND DIFFUSION OF POLLUTANTS OVER COMPLEX TOPOGRAPHY. WORK WILL INCLUDE COMPARISONS OF NEWLY ACQUIRED DATA WITH EXISTING THEORIES AND MODELING TECHNIQUES IN ORDER TO VERIFY AND REFINE PRESENT MODELS AS WELL AS TO DEVELOP NEW ONES. APPROACH: VISUALIZATION TECHNIQUES AND GROUND LEVEL CONCENTRATION MEASUREMENTS USING THE WIND TUNNEL AND WATER CHANNEL/TOWING TANK WILL PROVIDE THE DATA NECESSARY FOR THE STUDIES.

*PROJECT: 001116-HUMAN HEALTH EFFECTS OF SODIUM IN THE DRINKING WATER

TASK =D614B-011C00 **EPA=R805612-01 ** (GRANT)
STARTING/ COMPLETION DATE : 02/78 - 02/83 : FY78

EPA OFFICER.: DG -GREATHOUSE EPA/HERL - CINC
INVESTIGATOR.: RW TUTHILL UNIV OF MASSACHUSETTS PUBLIC HLTH DIV
EJ CALABRESE UNIV OF MASSACHUSETTS PUBLIC HLTH DIV
MILESTONES...: 12/78 -COMPLETION OF STUDY OF EFFECTS IN SECOND GRADERS
12/79 -COMPLETION OF HIGH SCHOOL IN NEW COMMUNITIES
12/79 -BOTTLE WATER STUDY COMPLETED
12/81 -COMPLETION OF PRE- AND POST-CHANGE OVER STUDY
12/82 -COMP. OF HOSP. STUDY OF INCIDENCE OF CIRCUL. SYSTEM/KIDNEY DISEASES
PROGRAM ID...: (PE-614) DRINKING WATER
MANDATE.......: 10-13 SOLID WASTE DISPOSAL ACT
ORDIS CODES..: RECN-001116 SSIE-GMA 5387 EPA -R805612-01 ORD -RD10B30-1078
PE -614
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: A PRIOR STUDY BY THE INVESTIGATORS COMPARING 300 HIGH SCHOOL SOPHOMORES IN A HIGH SODIUM (108 PPM) WITH THOSE IN A LOW SODIUM (8 PPM) DRINKING WATER COMMUNITY INDICATED A MEDICALLY AND STATISTICALLY SIGNIFICANT UPSHIFT IN THE POPULATION BLOOD PRESSURE (B.P.) DISTRIBUTION IN BOTH MALES AND FEMALES FOR BOTH SYSTOLIC AND DIASTOLIC B.P.'S. A SUBSEQUENT ANALYSIS OF HOME FIRST MORNING TAP WATER SAMPLES FOR NINE HEAVY METALS POTENTIALLY RELATED TO CIRCULATORY SYSTEM DISEASE IS CURRENTLY UNDERWAY ALONG WITH AN ANALYSIS OF THE CIRCULATORY SYSTEM MORTALITY EXPERIENCE OF THE TWO COMMUNITIES OVER THE PAST DECADE. THE PHASED RESEARCH PROGRAM BEING PROPOSED FOR THIS GRANT IS DESIGNED TO PROVIDE FURTHER HUMAN POPULATION DATA ON THE HEALTH EFFECTS OF SODIUM IN THE DRINKING WATER. THE SPECIFIC STUDIES ARE: A REPLICATION OF THE ORIGINAL STUDY IN A SECOND GRADE POPULATION; REPLICATION IN TWO DIFFERENT WATCHED COMMUNITIES WITH ONLY HALF THE DIFFERENCE IN SODIUM LEVELS; A BOTTLED WATER STUDY TO DIFFERENTIATE THE SODIUM EFFECT ON B.P. DISTRIBUTION FROM OTHER WATER FACTORS; A BEFORE AND AFTER COMMUNITY CHANGEOVER TO LOW SODIUM WATER STUDY OF B.P. DISTRIBUTIONS OF SIXTH GRADERS AND EARLY MIDDLE-AGED ADULTS; A BEFORE AND AFTER STUDY OF HOSPITALIZED INCIDENCE OF CIRCULATORY SYSTEM MORBIDITY.

*PROJECT: C05694-HUMAN HEALTH EFFECTS OF ELEVATED DRINKING WATER SODIUM LEVELS

TASK =DC60 -7D0001 **EPA=R805612-02 ** (GRANT)
STARTING/ COMPLETION DATE : 02/78 - 02/83 : FY80

EPA OFFICER..: RH OSBORNE EPA/HERL - CINC 513-684-7249
INVESTIGATOR..: EJ CALABRESE UNIV OF MASSACHUSETTS PUBLIC HLTH DIV
RW TUTHILL UNIV OF MASSACHUSETTS PUBLIC HLTH DIV
MILESTONES....: 02/80 -COMPLETION OF BOTTLED WATER STUDY
02/83 -COMPLETION OF PROJECT
PROGRAM ID....: (PE-C60) HEALTH EFFECTS - DRINKING WATER
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-11 DAA FOR WATER PLANNING AND STANDARDS
CURR. RESULTS: BOTTLED WATER STUDY NEARING COMPLETION. RESULTS
CURRENTLY UNDERGOING PRELIMINARY PHASE OF ANALYSIS.
ORDIS CODES...: RECN-005694 SSIE-GMA 6670 EPA -R805612-02 ORD -RD10B30-5080
PE -C60
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: RECENT STUDIES HAVE CONFIRMED CLINICAL AND STATISTIAL ELEVATIONS OF THE BLOOD PRESSURE DISTRIBUTIONS OF TENTH AND THIRD GRADE CHILDREN FROM A COMMUNITY WITH HIGH SODIUM LEVELS AND ONE WITH LOW LEVELS OF SODIUM. A BOTTLED WATER STUDY WILL BE UNDERTAKEN AMONG FOURTH GRADERS IN THE HIGH SODIUM COMMUNITY TO DETERMINE IF THE BLOOD PRESSURE OF DIFFERENCE IS DUE TO SODIUM INGESTED IN DRINKING WATER OR FACTORS UNRELATED TO WATER INGESTION. APPROACH: ONE HUNDRED EIGHTY CHILDREN WILL BE DIVIDED INTO THREE STUDY GROUPS. BOTTLED WATER WILL BE SUPPLIED CONTAINING VARYING AMOUNTS OF SODIUM. THE CHILDREN WILL USE THE BOTTLED WATER FOR ALL DRINKING AND COOKING PURPOSES FOR THREE MONTHS. BLOOD PRESSURE AND URINE SODIUM WILL BE MONITORED TO DETECT ANY DIFFERENCES AMONG THE THREE STUDY GROUPS.

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*PROJECT: 005482-ENVIRONMENTAL CHANGES & AGRICULTURAL BENEFITS RESULTING FROM UTILIZATION
                OF MUNICIPAL SEWAGE SLUDGE IN THE PRODUCTION OF CROPS (ABBR
                 TASK =CC36 -01TC28 **EPA=R805629-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 10/77 - 02/81 :   FY80
  EPA  OFFICER.: GK DOTSON               EPA/MERL - CINC                FTS-8-684-7661
  INVESTIGATOR.: C  LUE HING             METRO SAN DIST OF CHICAGO      CHICAGO                IL 60611
                 TD HINESLY              UNIV OF ILLINOIS               URBANA                 IL 61801
                 D  ZENZ                 METRO SAN DIST OF CHICAGO      CHICAGO                IL 60611
  MILESTONES...: 10/80 -WORK COMPLETED
                 02/81 -FINAL REPORT PUBLISHED
  PROGRAM ID...: (PE-C36 )           URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
  FINAL OUTPUT.: SLUDGE TREATED CORNPLOT YIELDS EQUAL OR EXCEED YIELDS OF
                 CONVENTIONALLY FERTILIZED CONTROLS NO SIGNIDICANT DIFFERENCE
                 WAS FOUND IN PERFORMANCE BETWEEN EGG-LAYING HENS FED RATION
                 OF SOYBEANS AND CORN WITH VARIABLE CD CONCENTRATION
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                 20-12     DAA FOR WATER PROGRAM OPERATIONS
                 20-14     DAA FOR SOLID WASTE
  CURR. RESULTS: NO SIGNIFICANT DIFFERENCE BETWEEN YIELDS FROM IRRIGATED
                 FERTILIZED PLOTS AND THOSE TREATED WITH SLUDGE.  NO
                 SIGNIFICANT DIFFERENCE IN PERFORMANCE BETWEEN EGG-LAYING
                 PULLETS FED WITH CORN AND SOYBEAN MEAL CONTAINING 0.71
                 AND 2.38 PPM CD.
  ORDIS CODES..: RECN-005482        SSIE-GMA  4574 3      EPA -R805629-01      ORD -RC10B30-5080
                 LABN-C611B-7219    PE  -C36
  PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE GENERAL OBJECTIVES ARE TO COLLECT INFORMATION NEEDED TO DEVELOP METHODS FOR
                  PREVENTING OR MINIMIZING ADVERSE EFFECTS ON SOILS, CROPS, WATER, AND ANIMALS, AND MAXIMIZING
                  BENEFITS FROM USING SEWAGE SLUDGE AS A FERTILIZER AND SOIL CONDITIONER. APPROACH: FIELD PLOTS AND
                  LYSIMETER PLOTS WITH THREE SOIL TYPES AND STRIP-MINED SOIL WILL RECEIVE LIQUID DIGESTED SLUDGE
                  APPLICATIONS AT VARYING RATES (0, 1/4, 1/2 AND MAXIMUM). SOME PLOTS HAVE RECEIVED ANNUAL SLUDGE
                  APPLICATIONS FOR NINE (9) YEARS. MAXIMUM RATE IS EQUIVALENT TO ONE INCH PER WEEK FOR ABOUT SIX TO
                  NINE WEEKS. THE EFFECT OF SLUDGE COMPONENTS ON SOIL, WATER AND CROPS WILL BE DETERMINED BY REGULAR
                  SAMPLING AND ANALYSIS. CORN AND SOYBEANS PRODUCED ON SLUDGE TREATED SOILS WILL BE FED TO LAYING
                  HENS. THE EFFECT ON THE HEALTH, COMPOSITION AND PRODUCTION OF THE HENS WILL BE MEASURED OVER A
                  PERIOD OF 80 WEEKS. CADMIUM ACCUMULATION IN THE HENS AND EGGS WILL BE DETERMINED. A SINGLE
                  APPLICATION OF DEWATERED SLUDGE AT HIGH RATE ON FIELD PLOTS ON STRIP-MINED SOILS WILL BE COMPARED
                  TO INCREMENTAL LIQUID SLUDGE APPLICATIONS ANNUALLY.
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*PROJECT: 005260-AMMONIA TOXICITY TO FISHES

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                  TASK =N882 -000001 **EPA=R805636     ** (GRANT)
                  STARTING/ COMPLETION DATE : 10/77 - 09/80 :   FY79
EPA  OFFICER.: WA BRUNGS              EPA/ERL - DULUTH              FTS 8-783-9546
INVESTIGATOR.: RV THURSTON            MONTANA STATE UNIV            DEPT OF BIOL
               RC RUSSO               MONTANA STATE UNIV            DEPT OF BIOL
MILESTONES...: 07/80 -FINAL REPORT ON EFFECTS OF FLUCTUATIONS
               09/80 -FINAL DRAFT OF CRITERION DOCUMENT
PROGRAM ID...: (PE-882 )          SCIENTIFIC ASSESSMENT R & D -AIR
MANDATE......: 10-99      304(A)
CURR. RESULTS: FLUCTUATION EXPERIMENTS COMPLETED.
               LITERATURE SEARCH ON CHEMISTRY, ANALYSIS, AND
               EFFECTS OF AMMONIA COMPLETED.
ORDIS CODES..: RECN-005260         SSIE-GMA  4021 2      EPA -R805636        ORD -RN10B31-1079
               PE  -882
PROJ STATUS..: PROJECT-ACTIVE      INFO-UPDATED          ENTERED - UNKNOWN   UPDATED-  OCT-DEC 79
               CATEGORY-RESEARCH   ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: TO DETERMINE THE EFFECT OF FLUCTUATIONS IN AMMONIA CONCENTRATIONS ON FRESHWATER FISH. TO PREPARE A CRITERION DOCUMENT FOR THE CHEMISTRY AND FATE OF AMMONIA IN AQUATIC ENVIRONMENTS AND ITS EFFECTS ON AQUATIC ORGANISMS. APPROACH: ACUTE AND EMBRYO/LARVAL TESTS WITH SEVERAL PATTERNS OF DIURNAL AND OTHER EXAMPLES OF FLUCTUATING AMMONIA CONCENTRATIONS. THE CRITERION DOCUMENT PREPARATION WILL REQUIRE THE COLLECTION AND CRITICAL REVIEW OF APPROPRIATE WORLD LITERATURE AND COORDINATE IN THE DRAFTING OF A TOTAL DOCUMENT WITH ECAO-CINCINNATI.

89.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE R 805637-02

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Sampling Frequency - Microbiological Drinking Water Regulations

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Wesley O. Pipes
Betz Professor of Ecology
Department of Biological Sciences
The Environmental Studies Institute

Robert R. Christian
Assistant Professor of Biological Sciences
Department of Biological Sciences
The Environmental Studies Institute

NAME AND ADDRESS OF APPLICANT INSTITUTION

Drexel University
32nd & Chestnut Sts.
Philadelphia, Pa. 19104

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The objective of this project is to provide a rational basis for determination of the number of samples per month which need to be collected from a water distribution system to characterize the microbiological quality of the water and determine compliance with the National Interim Primary Drinking Water Regulation. The project involves five phases; namely, 1) retrospective observation of historical records of monitoring water distribution systems, 2) modeling of the dispersion of coliform bacteria in distribution systems, 3) development of field and laboratory procedures, 4) field sampling, and 5) laboratory experiments on dispersion of coliform bacteria in model systems.

This is the second year of a three year project. Phases 1) and 3) are essentially complete. The field sampling the first year included sampling of distribution systems in four small communities in Pennsylvania and New Jersey. Four additional systems will be sampled during the second year. The laboratory experiments will be initiated during the second year. The mathematical modeling is based upon data collected in the field and by means of the laboratory experiments.

89.2

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE R805643-02

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT The Clinical Pharmacology and Toxicology of Chlorine Dioxide and its Products: A Comparison of Tolerance and Safety in Animals and Human Volunteers.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

DEPARTMENT OF PHARMACOLOGY:
Joseph R. Bianchine, M.D., Ph.D., Professor and Chairman (Principal Investigator)
Daniel Couri, Ph.D., Professor of Pharmacology; Director Toxicology Laboratory
Mohamed S. AbdelRahman, Ph.D., Research Associate

NAME AND ADDRESS OF APPLICANT INSTITUTION

The Ohio State University Research Foundation
1314 Kinnear Road, Columbus, OH 43212

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

This is a second year continuation of a two year proposal (R805643) which was initiated here on July 14, 1978. Chlorination of drinking water supplies causes appearance of chlorinated phenols and other potential toxic materials. Chlorine dioxide (ClO_2), a possible alternate water disinfectant to chlorine, has been used for this purpose for several decades. Unfortunately little is known about the relative safety of this substance and two of its metabolites (chlorite and chlorate) for animals and man. Our initial short term studies in animals and man reveal that ClO_2 is safe for animals and man. Our detailed findings have been reported in our annual report to the Environmental Protection Agency. We now propose to extend these tolerances and safety studies to longer term chronic studies in both animals and human adult volunteer subjects. Every consideration and safeguard has been inserted into the studies in man to insure the safety of all subjects.

*PROJECT: 005032-WATER HYACINTH WASTEWATER TREATMENT SYSTEM

TASK =L822C-000049 **EPA=S805655-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/78 - 07/82 : FY79

EPA OFFICER.: WR DUFFER EPA/ERL - ADA FTS 8-743-2243
INVESTIGATOR.: RJ FOX REEDY CREEK IMPRV DIST LAKE BUENA VISTA FL 32830
MILESTONES...: 05/79 -CONSTRUCTION COMPLETE
08/79 -INITIAL HYACINTH CROP ESTABLISHED
10/79 -PRELIMINARY TESTING COMPLETED
10/80 -COMPLETE TESTING UTILIZING SECONDARY EFFLUENT AS INPUT
10/81 -COMPLETE TESTING UTILIZING PRIMARY EFFLUENT AS INPUT
05/82 -COMPLETE HARVESTING AND NUTRIENT ADDITION EXPERIMENTS
07/82 -COMPLETE FINAL PROJECT REPORT EVALUATING DESIGN VARIABLES
PROGRAM ID...: (PE-822) CONTROL TECH & POINT SOURCE- WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: THE EXPERIMENTAL FACILITY HAS BEEN CONSTRUCTED AND TESTS INITIATED TO DETERMINE THE TREATMENT EFFECTIVENESS OF THE SYSTEM FOR INPUTS OF PRIMARY SEWAGE EFFLUENT.
ORDIS CODES..: RECN-005032 SSIE-GMA 6025 EPA -S805655-01 ORD -RL10B30-1079
LABN-L822C-61 PE -822
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE PURPOSE OF THIS PROJECT IS TO DEMONSTRATE AN INNOVATIVE AND ENVIRONMENTALLY SOUND WATER HYACINTH WASTEWATER TREATMENT SYSTEM DESIGNED TO RECYCLE WATER AND NUTRIENTS. SPECIFIC GOALS: MEET TERTIARY EFFLUENT STANDARDS OF 5 MG/L BIOCHEMICAL OXYGEN DEMAND (BOD) AND SUSPENDED SOLIDS (SS), 3 MG/L NITROGEN (N), 1 MG/L PHOSPHORUS (P); SECONDARY SYSTEM REMOVAL CAPABILITY OF 85% BOD AND 75% SS FROM PRIMARY SEWAGE. THE APPROACH IS TO OPERATE A 50,000 GPD WASTEWATER TREATMENT SYSTEM, MONITOR THE SYSTEM AND ALL RELATED ACTIVITIES AND DETERMINE THE CAPABILITY OF THE SYSTEM TO MEET THE ABOVE OBJECTIVES. PHASE I OF THE PLAN WILL DESIGN, CONSTRUCT, AND OPERATE THE SYSTEM FOR 18 MONTHS; MONITOR SYSTEM, ANALYZE EFFECTIVENESS AND PUBLISH PERIODIC REPORTS AND A FINAL PHASE I REPORT. AS A SEPARATE ACTIVITY, CONDUCT STUDIES TO DETERMINE (1) BIOMASS CHARACTERIZATION/GROWTH OPTIMIZATION OF THE WATER HYACINTH AND (2) THE ENERGY CONVERSION POTENTIAL OF THE HYACINTH THROUGH ANAEROBIC DIGESTION. PRELIMINARY DESIGN CRITERIA SHOULD BE DEVELOPED FOR WATER HYACINTH TREATMENT SYSTEMS RECEIVING MUNICIPAL WASTEWATER. DATA FROM THIS PROJECT ARE TO BE UTILIZED FOR DESIGN OF A 1.0 MGD TREATMENT FACILITY.

*PROJECT: 003576-ALASKA VILLAGE RESEARCH PROJECT - WAINWRIGHT

TASK =M611B-000041 **EPA=R805661-01 ** (GRANT)
STARTING/ COMPLETION DATE : 10/77 - 10/78 : FY78

EPA OFFICER.: MA MITCHELL EPA/ERL - CORVALLIS 907-479-7728
INVESTIGATOR.: DD BODFISH WAINWRIGHT CITY GOVT WAINWRIGHT AK 99782
MILESTONES...: 10/78 -FINAL REPORT
PROGRAM ID...: (PE-611) WASTE MANAGEMENT- WATER QUALITY
FINAL OUTPUT.: REPORT EVAL ELIM. OR CONTROL OF POLLUTION.
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-003576 SSIE-GMA 4222 1 EPA -R805661-01 ORD -RM10B51-1078
LABN-M611D-041 PE -611
PROJ STATUS..: PROJECT-COMPLETED INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO PROVIDE FOR TECHNICAL ASSISTANCE AND OPERATION AND MAINTENANCE SUPPORT TO A SMALL NATIVE COMMUNITY FOR THE OPERATION OF A CENTRAL UTILITY TYPE FACILITY (INCLUDING WATER SUPPLY AND WASTE TREATMENT SYSTEMS) FOR EVALUATION OF ENGINEERING PERFORMANCE AND INSTITUTIONAL MANAGEMENT. FINAL OUTPUT: REPORT WHICH EVALUATES METHODS TO PROVIDE CENTRAL COMMUNITY FACILITIES FOR SAFE WATER AND ELIMINATION OR CONTROL OF POLLUTION IN SMALL COMMUNITIES LACKING SUCH FACILITIES.

*PROJECT: 001135-CHROMOSOME STUDIES IN HUMAN SUBJECTS EXPOSED TO ARSENIC IN DRINKING WATER

TASK =D614B-029C00 **EPA=R805665-01 ** (GRANT)
STARTING/ COMPLETION DATE : 05/78 - 10/80 : FY79

EPA OFFICER.: DG GREATHOUSE EPA/HERL - CINC FTS-8-684-7368
INVESTIGATOR.: BK VIG UNIV OF NEVADA DEPT. OF BIOLOGY
MILESTONES...: 03/80 -PROJECT COMPLETION & FINAL REPORT
PROGRAM ID...: (PE-614) PUBLIC SECTOR ACTIVITIES- WATER SUPPLY
MANDATE......: 10-15 SAFE DRINKING WATER ACT
ORDIS CODES..: RECN-001135 SSIE-GMA 5376 1 EPA -R805665-01 ORD -RD10B30-1079
PE -614
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: THE PROJECT IS AIMED AT FINDING OUT IF CHROMOSOME EXPOSURE OF HUMAN POPULATION FOR 5 OR MORE YEARS TO ARSENIC AT CONCENTRATIONS OF 0.05 MG/L OR HIGHER IN DRINKING WATER INCREASES THE INCIDENCE OF GENETIC DAMAGE MEASURED AS CHROMOSOMES ABERRATIONS AND SISTER CHROMATID EXCHANGES (SCE'S) IN COMPARISON TO THOSE INDIVIDUALS WHO HAVE BEEN DRINKING WATER CONTAINING ARSENIC LESS THAN 0.01 MG/L, A LIMIT RECOMMENDED BY THE U.S.E.P.A. THE PLAN CALLS FOR ANALYZING LYMPHOCYTES GROWN IN VITRO. FAMILY HISTORIES ABOUT ABNORMALITIES OF SKIN AND OTHER ORGANS OF THE BODY SHALL BE COLLECTED AS WELL AS THE DATA ON FETAL WASTAGE AND ABNORMALITIES OF BIRTHS AMONG THE OFFSPRING OF THE COUPLES WHO HAVE BEEN DRINKING ARSENIC-WATER. THE STUDIES SHALL BE CARRIED OUT IN THE AREA AROUND RENO, NEVADA, WHERE A LARGE NUMBER OF FAMILIES IN RURAL AREAS DEPEND UPON THE WELL WATER CONTAINING AS HIGH AN AMOUNT OF ARSENIC AS 2 MG/L.

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*PROJECT: 003729-RENEWAL OF STUDIES OF OXYGEN PRODUCTION, LOSS, EXCHANGE, AND TRANSPORT
                 RATES IN THE MERS FIELD CHANNELS
                   TASK =N820A-000034 **EPA=R805678-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 03/78 - 06/80 :    FY79
  EPA  OFFICER.: KE HOKANSON              EPA/ERL - DULUTH                CML (612) 295-5145
  INVESTIGATOR.: H  STEFAN                UNIV OF MINNESOTA               DEPT OF CIVIL ENG
                 JS GULLIVER              UNIV OF MINNESOTA               DEPT OF CIVIL ENG
  MILESTONES...: 03/78 -INITIATE FIELD WORK
                 09/79 -COMPLETE FIELD WORK
  PROGRAM ID...: (PE-820 )          FRESHWATER ECO EFFECTS  - WATER QUALITY
  MANDATE......: 30-99     ECOLOGY
  CURR. RESULTS: COLLECTION OF FIELD DATA IN THERMAL AND AMBIENT CHANNELS
                 AND ACID DOSED CHANNELS COMPLETED IN FORM OF
                 INTERNAL MEMO.  DRAFT FINAL REPORT IN PREPARATION.
  ORDIS CODES..: RECN-003729        SSIE-GMA  4926 1      EPA -R805678-01       ORD -RN10B30-3079
                 LABN-N608A-103     PE  -820
  PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  OCT-DEC 79
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: TO EVALUATE EXISTING AND DEVELOP NEW METHODS TO MEASURE PHOTOSYNTHESIS AND COMMUNITY RESPIRATION IN THE OUTDOOR EXPERIMENTAL CHANNELS. ASSUMPTIONS PREVIOUSLY MADE ARE FURTHER EVALUATED IN THE PRODUCTION AND RESPIRATION MEASUREMENTS IN AMBIENT, THERMAL AND ACIDIFIED CHANNELS. TO PROVIDE MERS A WORKING PROCEDURE TO MEASURE COMMUNITY RESPONES. APPROACH: PROCEDURES INCLUDE EMPIRICAL MEASUREMENTS FOR REAERATION COEFFICIENTS, WIND EFFECTS, CHANNEL MORPHOLOGY, LONGITUDINAL COEFFICIENTS, COMMUNITY PHOTOSYNTHESIS RESPIRATION, AND SATURATION CONCENTRATIONS OF DISSOLVED OXYGEN.

*PROJECT: 004958-ASSESSMENT AND IMPLICATIONS OF BACTERIAL REGROWTH AND WATER DISTRIBUTION

TASK =C824A-S2T020 *-EPA=R805680 ** (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 07/80 : FY79

EPA OFFICER.: DJ REASONER EPA/MERL - CINC FTS 8-684-7232
INVESTIGATOR.: BH OLSON UNIV OF CALIFORNIA PROG IN SOC ECOLOGY
MILESTONES...: 08/78 -SELECTION OF STUDY DISTRIBUTION SYSTEMS
12/78 -ID OF PROBLEM AREAS IN DISTRIB. SYSTEMS AND SEL. OF AREAS TO STUDY
12/79 -COMPLETION OF PHYS., CHEMICAL, AND BACT. CHARACTERIZATION OF SYSTEMS
02/80 -ID OF FACTORS INVOLVED IN COLIFORM REGROWTH AND/OR SUPPRESSION
08/80 -FINAL REPORT - CONCLUSIONS AND RECOMMENDATIONS FROM STUDY
PROGRAM ID...: (PE-824) DRINK WATER TREAT & GROUND WATER PROT -DRINKING WATER
MANDATE......: 10-15 SAFE DRINKING WATER ACT
CURR. RESULTS: POST-DOCTORAL FELLOW APPOINTED AND TECHNICAL PROGRESS SATISFACTORY. TWO DISTRIBUTION SYSTEMS SELECTED FOR STUDY.
ORDIS CODES..: RECN-004958 SSIE-GMA 6039 EPA -R805680 ORD -RC10B30-1079
PE -824
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO DELINEATE CONDITIONS UNDER WHICH BACTERIAL REGROWTH AND COLIFORM SUPPRESSION OCCUR IN POTABLE WATER DISTRIBUTION SYSTEMS. APPROACH: THIS PROJECT WILL EXAMINE TWO DISTRIBUTION SYSTEMS WHICH HAVE ONGOING PROBLEMS WITH HIGH STANDARD PLATE COUNTS OR HIGH NONCOLIFORM COUNTS ON MEMBRANE FILTERS. ONE SYSTEM WILL BE OF GROUND WATER ORIGIN WITH CHLORINATION AS THE ONLY WATER TREATMENT AND THE OTHER WILL BE FROM A TREATED SURFACE WATER SOURCE. BOTH SYSTEMS WILL RECEIVE RAW WATER THAT IS OF GOOD QUALITY. THE SYSTEMS WILL BE MONITORED AS THE FINISHED WATER LEAVES THE PLANT AND AT VARIOUS LOCATIONS IN THE DISTRIBUTION SYSTEM INCLUDING ANY SPECIFIC PROBLEM AREAS. THE IDENTIFIED SYSTEMS WILL BE CHARACTERIZED PHYSICALLY AND CHEMICALLY. PARAMETERS WITHIN THE DISTRIBUTION SYSTEM AS TEMPERATURE, TURBIDITY, COLOR, DISSOLVED OXYGEN, PH, RESIDUAL CHLORINE, TRACE ELEMENTS, AND ORGANIC CONTENT WILL BE MONITORED. SIMULTANEOUSLY, STANDARD PLATE COUNTS WILL BE PERFORMED THROUGHOUT THE DISTRIBUTION SYSTEM. THE TOTAL NUMBER OF BACTERIA APPEARING ON THE STANDARD PLATE COUNT WILL BE IDENTIFIED AT LEAST FOUR TIMES DURING THE FIRST YEAR OF THE PROJECT. PHYSICAL, CHEMICAL, AND MICROBIOLOGICAL FACTORS AFFECTING THE OCCURRENCE OF BACTERIAL REGROWTH WILL BE IDENTIFIED. COLIFORM SUPPRESSION WILL BE EVALUATED IN TERMS OF MICROBIAL POPULATION DENSITIES, TYPES OF BACTERIAL GENERA PRESENT, AND POSSIBLE CHEMICAL AND PHYSICAL FACTORS. ALTERATIONS IN THE DISTRIBUTION SYSTEMS TO ELIMINATE BACTERIAL REGROWTH WILL BE EVALUATED THROUGH FIELD TRIALS. FINAL OUTPUT: RESULTS OF THIS STUDY SHOULD PROVIDE INFORMATION CONCERNING THE FACTORS THAT CONTRIBUTE TO BACTERIAL GROWTH OR REGROWTH IN TREATED WATER DISTRIBUTION SYSTEMS. ADDITIONALLY THE STUDY SHOULD ALSO YIELD INFORMATION ON THE CONDITIONS THAT RESULT IN SUPPRESSION OF COLIFORM DETECTION IN TREATED DISTRIBUTION WATER.

•PROJECT: 006640-IN VIVO METHODS FOR ASSESSING NEUROTOXICITY

TASK =HC2R -991600 ••EPA=R805693 •• (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 06/81 : FY80

EPA OFFICER : LW REITER EPA/HERL - RTP 629-2671
INVESTIGATOR.: BORSCHEIN UNIV OF CINCINNATI CINCINNATI OH 45221
MILESTONES...: 07/78 -DEVELOP CNS LESIONING PROCEDURES
04/79 -VALIDATION OF 8-PLC SYSTEMS
04/79 -DEVELOPMENT OF AUTOMATED BEHAVIORAL TEST SYSTEMS
04/79 -INITIATION OF CHRONIC LEAD EXPOSURE
PROGRAM ID...: (PE-C2R) HEALTH EFFECTS OF ENERGY RELATED POLLUTANTS
MANDATE......: 20-99 NONE
ORDIS CODES..: RECN-006640 SSIE-HZ 809916 EPA -R805693 ORD -RH10B30-2080
PE -C2R
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: THE PURPOSE OF STUDY IS TO DEVELOP NEW METHODOLOGIES FOR THE IN VIVO DETERMINATION OF NEUROTOXICITY WITHIN THE CNS. THE TEST SYSTEM WILL UTILIZE BOTH BEHAVIORAL AND BIOCHEMICAL MEASURES TO EVALUATE HEAVY METAL TOXICITY IN THE MOUSE. EXPERIMENTS PROGRESSING ON SCHEDULE.

•PROJECT: 006315-IN VIVO METHODS FOR ASSESSING NEUROTOXICITY

TASK =H834 -991600 ••EPA=R805693 •• (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 06/81 : FY79

EPA OFFICER.: LW REITER EPA/HERL - RTP 629-2671
INVESTIGATOR.: UNKNOWN UNIV OF CINCINNATI CINCINNATI OH 45221
MILESTONES...: 07/78 -DEVELOP CNS LESIONING PROCEDURES
04/79 -VALIDATION OF 8-PLC SYSTEMS
04/79 -DEVELOPMENT OF AUTOMATED BEHAVIORAL TEST SYSTEMS
04/79 -INITIATION OF CHRONIC LEAD EXPOSURE
PROGRAM ID...: (PE-834) HEALTH EFFECTS -ENERGY
MANDATE......: 20-99 NONE
ORDIS CODES..: RECN-006315 SSIE-HZ 799916 EPA -R805693 ORD -RH10B30-2079
LAEN-H834 -991600 PE -834
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: THE PURPOSE OF STUDY IS TO DEVELOP NEW METHODOLOGIES FOR THE IN VIVO DETERMINATION OF NEUROTOXICITY WITHIN THE CNS. THE TEST SYSTEM WILL UTILIZE BOTH BEHAVIORAL AND BIOCHEMICAL MEASURES TO EVALUATE HEAVY METAL TOXICITY IN THE MOUSE.

•PROJECT: 002533-IN VIVO METHODS FOR ASSESSING NEUROTOXICITY

TASK #H601E-008897 ••EPA#R805693 •• (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 06/81 : FY78

EPA OFFICER.: LW REITER EPA/HERL - RTP
INVESTIGATOR.: R BORNSCHEIN UNIV OF CINCINNATI CIV & CIV ENG DEPT
IA MICHAELSON UNIV OF CINCINNATI CIV & CIV ENG DEPT
MILESTONES...: 06/81 -FINAL REPORT
PROGRAM ID...: (PE-601) HEALTH EFFECTS- AIR
FINAL OUTPUT.: PUBLICATION IN OPEN LITERATURE
MANDATE......: 30-99 BEHAVIORAL TOXICOLOGY
ORDIS CODES..: RECN-002533 SSIE-GMA 5478 EPA -R805693 ORD -RH10B30-3078
PE -601
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: THE STUDY WILL DEVELOP NEW METHODOLOGIES FOR THE IN VIVO DETERMINATION OF NEUROTOXICITY WITHIN THE CNS. THE TEST SYSTEM WILL UTILIZE BOTH BEHAVIORAL AND BIOCHEMICAL MEASURES TO EVALUATE HEAVY METAL TOXICITY IN THE MOUSE. THIS APPROACH WILL RELY HEAVILY UPON A PROCEDURE, DEVELOPED BY ANDEN ET AL., IN WHICH THE FUNCTIONING OF THE EXTRAPYRAMIDIAL SYSTEM IS REFLECTED IN AN ANIMAL'S ASYMMETRIC POSTURE AND LOCOMOTION. THIS "ROTATIONAL BEHAVIOR" WILL BE USED (1) TO EVALUATE THE EFFECTS OF ACUTE INTRACEREBRAL ADMINISTRATION OF NEUROTOXINS, AND (2) TO UNMASK COVERT CHANGES IN NEURAL FUNCTION WHICH MAY ARISE AS A RESULT OF LONG-TERM LOW LEVEL SYSTEMIC EXPOSURE TO NEUROTOXINS. THE AIM IS TO DEVELOP AN APPROACH WHICH LIES BETWEEN STRICT BEHAVIORAL ANALYSES OF NEUROTOXICITY WHICH DO NOT LEND THEMSELVES TO STUDIES OF MECHANISM OF ACTION, AND THE MORE CLASSICAL IN VITRO BIOCHEMICAL AND NEUROPHYSIOLOGICAL ASSAYS WHICH DO NOT READILY PERMIT EXTRAPOLATION TO THE BEHAVIORAL LEVEL. INITIAL STUDIES WILL FOCUS ON THE USEFULNESS OF THIS METHODOLOGY IN THE ASSESSMENT OF NEUROTOXICITY ARISING FROM EXPOSURE TO HEAVY METALS, PARTICULARLY INORGANIC LEAD, CADMIUM AND MERCURY.

•PROJECT: 001614-TRANSFER AND UTILIZATION OF PARTICULATE CONTROL TECHNOLOGY

TASK #F830M-791980 ••EPA#R805725 •• (GRANT)
STARTING/ COMPLETION DATE : 12/77 - 03/81 : FY79

EPA OFFICER.: DC DREHMEL EPA/IERL - RTP 919-541-2925
INVESTIGATOR.: FP VENDITTI UNIV OF DENVER DENVER RES INST
PROGRAM ID...: (PE-830) FLUE GAS PARTICULATE CONTROL -ENERGY
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-001614 SSIE-GMA 4975 1 EPA -R805725 ORD -RF10B30-1079
PE -830
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE IS TO PLAN, ORGANIZE, PUBLICIZE, AND CONDUCT A SYMPOSIUM COVERING ALL ASPECTS OF PATB TECHNOLOGY USED FOR CONTROLLING PARTICULATE EMISSIONS. THE SYMPOSIUM WILL INCLUDE TUTORIAL SESSIONS. APPROACH: PROVIDE REPORTS OF THE PROCEEDINGS FOR THE SYMPOSIUM, PRESENTATION OF PATB TECHNOLOGY TO POTENTIAL USERS AND TEACHING USE OF PATB PARTICULATE CONTROL DEVICE MODELS.

95.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
SSIE R-805730-02
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT: Development of Processor-based Hierarchical System for Communication of Integrated Pest Management Information

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Stuart H. Gage, Dr. Mark E. Whalon, Dr. R. Lal Tummala, Dr. George W. Bird, and Dr. Dean L. Hayhes--Department of Entomology

NAME AND ADDRESS OF APPLICANT INSTITUTION

Michigan State University
East Lansing, Michigan 48824

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The overall objective of Phase I has been to evaluate the current computer technology and hardware available for pest management application. The system described in the technical progress report will provide optimal flexibility during the developmental phase of the project.

Listed are the accomplishments of Phase I as they relate to the objectives of the original proposals:

1. Evaluation of computer technology and hardware at Michigan State as they relate to pest management.
2. Evaluation of potential microcomputer systems that could be used for data acquisition and, at the county level, as intelligent terminals.
3. Evaluation of software which is capable of both inter-computer and computer-application program communications.
4. Evaluation of potential hardware which could be used as a prototype mode.
5. Development of a low cost and reliable pest management computer communications system.

In addition, nine criteria were developed for the selection of hardware configurations. This system is based entirely on low-cost microcomputer units. This conceptualization is in-line with the distributed systems concept that is being developed via this project.

Software has been developed on the single user microcomputer for three areas: 1) utility software, 2) communications software, and 3) applications software.

*PROJECT: 002137-SIMPLIFIED SAMPLING SYSTEMS

TASK =GC07 -000444 **EPA=R805738 ** (GRANT)
STARTING/ COMPLETION DATE : 10/77 - 09/80 : FY80

EPA OFFICER.: T DYDEK EPA/ESRL - RTP 919-541-3085
INVESTIGATOR.: RJ HEINSOHN PENNSYLVANIA STATE UNIV MECH ENG DEPT
MILESTONES...: 09/78 -CONSTRUCT FIELD PROTOTYPE
11/78 -DELIVER ONE FIELD PROTOTYPE TO PO
12/78 -BEGIN FIELD TESTING
09/80 -FINAL REPORT
PROGRAM ID...: (PE-C07) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
FINAL OUTPUT.: SIMPLIFIED SOURCE SAMPLING SYSTEM FOR PARTICULATE
EMISSION MEASUREMENT.
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: DILUTION EJECTOR PUMP DEVELOPED AND EVALUATED.
PROTOTYPE SYSTEM DELIVERED TO EPA. SECOND PROTOTYPE
BEING EVALUATED AT PENN STATE.
ORDIS CODES..: RECN-002137 SSIE-GMA 4912 2 EPA -R805738 ORD -RG10B30-1080
PE -C07
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS TASK IS TO DESIGN, BUILD, AND TEST A SIMPLIFIED SOURCE SAMPLING SYSTEM. THIS SYSTEM WILL BE SUITABLE FOR USE AS METHODS 5, 17, AND THE IP SYSTEM. THE SYSTEM WILL HAVE A DILUTION SYSTEM WHICH CAN COLLECT PARTICULATE MATTER AT AMBIENT TEMPERATURE AND PRESSURE. EASE OF HANDLING AND USE ARE ALSO FACTORS WHICH ARE BEING EVALUATED. APPROACH: A DILUTION EJECTOR PUMP IS THE HEART OF THIS SYSTEM. IT PROVIDES THE PUMPING AND THE NEEDED DILUTION AIR.

*PROJECT: 000266-THE DEVELOPMENT AND DEMONSTRATION OF A HYDROPERM MICROFILTRATION SYSTEM FOR THE TREATMENT OF BATTERY MANUFACTURE WASTEWATER EFFLUENT
TASK =B610B-000456 --EPA=R805748-01 -- (GRANT)
STARTING/ COMPLETION DATE : 01/78 - 01/79 : FY79

EPA OFFICER..:	CH DARVIN	EPA/IERL - CINC	FTS-8-684-4491	
INVESTIGATOR..:	JA BITLER	GENERAL BATTERY CORP	READING	PA 19603
	J BARANSKI	GENERAL BATTERY CORP	READING	PA 19603
	TR SUNDARAM	HYDRONAUTICS INC	APPL SCI DEPT	

MILESTONES....: 12/79 -FINAL REPORT RECEIVED
PROGRAM ID....: (PE-610) INDUSTRIAL PROC. - WATER QUALITY
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-30 AA FOR TOXIC SUBSTANCES
30-99 WASTEWATER TECHNOLOGY
ORDIS CODES...: RECN-000266 SSIE-GMA 5091 1 .EPA -R805748-01 ORD -RB10B30-5078
PE -610
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE IS TO DEMONSTRATE THE APPLICABILITY OF HYDROPERM MICROFILTRATION FOR THE VIRTUALLY COMPLETE REMOVAL OF SUSPENDED SOLIDS, AND FOR THE REMOVAL OF TOXIC HEAVY METALS, SPECIFICALLY LEAD, TO LEVELS BELOW 0.05 PPM FROM BATTERY MANUFACTURE WASTEWATER EFFLUENTS. HYDROPERM IS A MICROFILTRATION SYSTEM, THE PRINCIPAL ELEMENT OF WHICH IS A HOLLOW TUBULAR FILTER OF DISCRETE WALL THICKNESS (APPROXIMATELY 6-9 MM ID) MADE OF THERMOPLASTIC MATERIAL AND CONTAINING MICRON-SIZE PORES. AT RELATIVELY LOW PRESSURES (APPROXIMATELY 5 PSI), THESE TUBES ARE CAPABLE OF VIRTUALLY TOTAL REMOVAL OF SUSPENDED SOLIDS AS WELL AS SIGNIFICANT AMOUNTS OF HIGH MOLECULAR WEIGHT DISSOLVED SOLIDS FROM A VARIETY OF INDUSTRIAL AND DOMESTIC WASTEWATERS, WHILE MAINTAINING REASONABLY HIGH PERMEATION RATES. THE FILTRATE PERMEATES THROUGH THE POROUS WALLS OF THE TUBE IN A DIRECTION PERPENDICULAR TO THE DIRECTION OF FLOW OF THE FEED. THE TUBES THEMSELVES CAN BE OPTIMIZED IN TERMS OF THEIR PERFORMANCE BY PROPER CHOICE OF OPERATING PRESSURE AND FEED CIRCULATION VELOCITY. MOREOVER, THE TUBES CAN BE MADE WITH CONTROLLED MICROPOROSITY AND PORE-SIZE DISTRIBUTION SO AS TO OPTIMIZE THEIR APPLICATION TO A PARTICULAR TYPE OF WASTEWATER. THIS WILL BE THE SUBJECT OF PHASE I OF THE PROGRAM. PHASE II WILL BE A COMPREHENSIVE, 8-MONTH PROGRAM INVOLVING THE DESIGN, CONSTRUCTION, INSTALLATION AND DEMONSTRATION OF A 24,000 GPD HYDROPERM SYSTEM, INTERFACING WITH THE EXISTING WASTEWATER TREATMENT PLANT AT THE GENERAL BATTERY PLANT IN HAMBURG, PENNSYLVANIA. FOUR COMPACT HYDROPERM MODULES WILL BE USED, EACH CONTAINING 100 SQUARE FT OF FILTRATION SURFACE AREA.

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*PROJECT: 000863-ANALYTICAL METHODS EVALUATION FOR APPLICABILITY IN LEACHATE ANALYSIS

                 TASK *CC73 -S1T030 **EPA*R805753      ** (GRANT)
                 STARTING/ COMPLETION DATE : 12/76 - 05/80 :    FY80
 EPA  OFFICER.: DE SANNING                EPA/MERL - CINC                  FTS 8-684-7871
 INVESTIGATOR.: FB DEWALLE                UNIV OF WASHINGTON               SCHOOL OF PUBLIC HLTH
 MILESTONES...: 09/78 -DRAFT FINAL REPORT
                12/78 -REPORT PUBLISHED
                12/78 -SUMMARIZE RESULTS OF "ROUND ROBIN" LEACHATE ANALYSIS STUDY
                09/80 -FINAL REPORT PUBLISHED
 PROGRAM ID...: (PE-C73 )           SOLID & HAZARDOUS WASTE
 MANDATE......: 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                20-14     DAA FOR SOLID WASTE
                20-R10    EPA REGION X
                30-99     CHEMISTRY
 CURR. RESULTS: DRAFT FINAL REPORT RECEIVED AND REVIEWED AND
                RESUBMITTED FOR TYPING.
 ORDIS CODES..: RECN-000863          SSIE-GMA  3581 3      EPA -R805753         ORD -RC10830-5079
                LABN-C618A-095       PE  -C73
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
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ABSTRACT......: IT IS THE PURPOSE OF THE PROPOSED RESEARCH TO EVALUATE THIRTY OR MORE PHYSICAL AND CHEMICAL METHODS FOR THEIR APPLICABILITY IN ANALYSES OF CONTAMINATED MUNICIPAL AND INDUSTRIAL LEACHATE STREAMS. THIS RESEARCH IS NECESSARY SINCE EXISTING ANALYTICAL METHODS WERE PRIMARILY DEVELOPED FOR ANALYSES OF WATER AND WASTEWATER AND THEIR DIRECT APPLICATION TO LEACHATE ANALYSES WAS FOUND TO LEAD TO ERRONEOUS RESULTS. THE ACCURACY OF THE METHODS WILL BE TESTED WITH THE STANDARD ADDITION TECHNIQUE. WHILE THE PRECISION WILL BE EVALUATED BY TWELVE OR MORE PARTICIPATING LABORATORIES. ANALYSES OF VARIANCE WILL DETERMINE THE BETWEEN-LABORATORY AND THE WITHIN-LABORATORY ERROR.

•PROJECT: 002159-AN IN-STACK DIFFUSION CLASSIFIER FOR AEROSOL MASS DISTRIBUTION MEASUREMENTS
TASK =GC07 -000445 ••EPA=R805762-02 •• (GRANT)
STARTING/ COMPLETION DATE : 10/77 - 09/80 : FY80

EPA OFFICER.: KT KNAPP EPA/ESRL - RTP FTS 8-629-3085
INVESTIGATOR.: DA LUNDGREN STATE UNIV SYS OF FLORIDA ENV ENG DEPT
MILESTONES...: 06/78 -CONSTRUCT PROTOTYPE
09/78 -COMPLETE CALIBRATION
03/79 -DELIVER FIELD PROTOTYPE
06/79 -BEGIN FIELD TESTING
09/80 -FINAL REPORT
PROGRAM ID...: (PE-C07) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
FINAL OUTPUT.: IN STACK DIFFUSION CLASSIFIER
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: LAB PROTOTYPE MADE OF ALUMINUM FABRICATED AND TESTED. TWO STAINLESS STEEL PROTOTYPES COMPLETED AND WILL BE FIELD TESTED.
ORDIS CODES..: RECN-002159 SSIE-GMA 4911 2 EPA -R805762-02 ORD -RG10830-1080
LABN-G712B-BC-012 PE -C07
PROJ STATUS..: ACTIVE -MULTIYEAR INFO UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: THE OBJECTIVE OF THIS WORK IS TO DEVELOP, FABRICATE, AND TEST AN IN-STACK DIFFUSION PARTICLE SIZE CLASSIFIER. APPROACH: AN IN-STACK DIFFUSION DEVICE WITH FIVE SIZING STAGES WHICH USE A DIFFERENT NUMBER OF DIFFUSION SCREENS WILL BE USED.

•PROJECT: 000279-METAL REMOVAL AND CYANIDE DESTRUCTION USING AN ELECTROCHEMICAL REACTOR

TASK =B6108-000725 ••EPA=S805768-01 •• (GRANT)
STARTING/ COMPLETION DATE : 04/78 - 07/79 : FY79

EPA OFFICER.: CH DARVIN EPA/IERL - CINC FTS 8-684-4491
INVESTIGATOR.: EP DURKIN METAL FINISHERS FOUNDATION CHICAGO IL 60601
E ROOF METAL FINISHERS FOUNDATION CHICAGO IL 60601
MILESTONES...: 07/79 -FINAL REPORT RECEIVED
PROGRAM ID...: (PE-610) INDUSTRIAL PROC. - WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-11 DAA FOR WATER PLANNING AND STANDARDS
CURR. RESULTS: PLANT ASSESSMENT COMPLETE WITH 45 RECOMMENDATIONS FOR WATER REDUCTION AND CHEMICAL SAVINGS. FIRST OF SIX REACTORS DUE FOR INSTALLATION MAY 79.
ORDIS CODES..: RECN-000279 SSIE-GMA 5093 1 EPA -S805768-01 ORD -RB10830-5079
PE -610
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: TO DEMONSTRATE INDUSTRIALLY THE TECHNICAL AND ECONOMIC CAPABILITIES OF AN ELECTROCHEMICAL REACTOR TO REMOVE TRACE METALS AND CYANIDES IN METAL FINISHING EFFLUENTS. APPROACH: AFTER THE COMPLETION OF THE FINAL ENGINEERING AND DESIGN, THE REACTOR SYSTEM WILL THEN BE CONSTRUCTED AND INSTALLED. THE ELECTROCHEMICAL REACTOR SYSTEM WILL BE OPERATED AND EVALUATED USING RINSE TANK DISCHARGE AND FINAL PLANT EFFLUENT.

·PROJECT: 001118-AVAILABILITY OF CADMIUM TO RATS FROM CROPS GROWN ON CADMIUM ENRICHED SOILS
TASK =D614B-011E00 ··EPA=R805774-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 03/78 - 02/81 : FY78

EPA OFFICER.: RJ BULL   EPA/HERL - CINC   FTS 8-684-7213
INVESTIGATOR.: DR BUHLER   OREGON STATE UNIV   SCH OF AGRIC/ENTOMOL DEPT
IJ TINSLEY   OREGON STATE UNIV   SCH OF AGRIC/ENTOMOL DEPT
DC WRIGHT   OREGON STATE UNIV   SCH OF AGRIC/ENTOMOL DEPT
MILESTONES...: 06/79 -SET-UP AND PRODUCTION OF 109 CD LABELLED FOODSTUFFS
06/80 -INITIAL RESULTS WITH ONE FOODSTUFF COMPARED TO DRINKING WATER
06/81 -PROJECT COMPLETION, FINAL REPORT
PROGRAM ID...: (PE-614)   DRINKING WATER
MANDATE......: 10-05   RESOURCE CONSERVATION AND RECOVERY ACT
ORDIS CODES..: RECN-001118   SSIE-GMA 5378   EPA -R805774-01   ORD -RD10B30-1078
PE -614
PROJ STATUS..: PROJECT-ACTIVE   INFO-ORIGINAL   ENTERED - UNKNOWN   UPDATED- OCT-DEC 77
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT.....: WE PLAN TO DETERMINE THE AVAILABILITY OF CADMIUM BY RATS FROM EDIBLE PLANTS GROWN ON CADMIUM ENRICHED SOILS. SPECIFICALLY WE WILL MEASURE THE ABSORPTION AND TISSUE DISTRIBUTION OF 109CD IN WEANLING RATS FED SEMISYNTHETHIC DIETS CONTAINING SPINACH, CARROTS, LETTUCE, SOYBEANS, TOMATOES AND WHEAT GROWN ON SOIL TREATED WITH 109 CDCL2 AND COMPARE THE RELATIVE UPTAKE OF METAL WITH THAT FOUND FROM SIMILAR NONRADIOACTIVE DIETS SPIKED WITH IDENTICAL CONCENTRATIONS OF 109 CDCL2. WE WILL ALSO DETERMINE THE INFLUENCE OF COOKING ON THE UPTAKE OF 109CD BY RATS FED A VEGETABLE DIET AND INVESTIGATE THE DISTRIBUTION AND NATURE OF 109 CD BINDING IN THE VARIOUS CROPS.

·PROJECT: 005483-PHYSIOCHEMICAL PARAMETERS REGULATING CHEMICAL AND BIOLOGICAL
AVAILABILITY OF TRACE AND TOXIC METALS IN SLUDGE-AMENDED SOI
TASK =CC36 -01TC40 ··EPA=R805789 ·· (GRANT)
STARTING/ COMPLETION DATE : 10/78 - 12/80 : FY80

EPA OFFICER.: JA RYAN — EPA/MERL - CINC — FTS-8-684-7653
INVESTIGATOR.: WH PATRICK — LOUISIANA STATE UNIV — CTR FOR WETLANDS RES
RP GAMBRELL — LOUISIANA STATE UNIV — CTR FOR WETLANDS RES

MILESTONES...: 09/80 -PROJECT COMPLETED
12/80 -REPORT DEFINING EFFECT ON PH AND REDOX ON HEAVY METAL SOLUBILITY

PROGRAM ID...: (PE-C36) URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY

FINAL OUTPUT.: ·REPORT DEFINING EFFECT OF PH AND REDOX ON HEAVY METAL SOLUBILITY

MANDATE......: 30-99 WASTEWATER TREATMENT

ORDIS CODES..: RECN-005483 SSIE-GMA 5672 1 EPA -R805789 ORD -RC10B30-3080
PE -C36

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: THE PRIMARY OBJECTIVE OF THIS PROPOSED RESEARCH IS TO DETERMINE THE EFFECTS OF SOIL PH AND OXIDATION-REDUCTION CONDITIONS ON THE CHEMICAL AND BIOLOGICAL AVAILABILITY OF TRACE AND TOXIC METALS IN SEWAGE SLUDGE APPLIED TO AGRICULTURAL SOILS. AN ADDITIONAL OBJECTIVE IS TO DETERMINE THE EFFECTS OF AN ALTERED REDOX POTENTIAL ON THE METAL CAPACITY OF SOLUBLE AS WELL AS INSOLUBLE, LARGE MOLECULAR WEIGHT HUMIC MATERIALS. SUSPENSIONS OF SLUDGE-AMENDED SOIL WILL BE INCUBATED UNDER CONTROLLED PH AND REDOX POTENTIAL CONDITIONS AND A SEQUENTIAL CHEMICAL FRACTIONATION PROCEDURE WILL BE EMPLOYED TO DETERMINE THE CHEMICAL FORM OF METALS IN THE INCUBATED SUSPENSION. PLANTS WILL BE GROWN IN STIRRED SUSPENSIONS AND IN UNDISTURBED SOIL CORES IN WHICH PH AND OXIDATION-REDUCTION CONDITIONS ARE CONTROLLED TO MEASURE THE TREATMENT EFFECTS ON PLANT UPTAKE OF TRACE AND TOXIC METALS. SOIL AND SLUDGE ORGANICS WILL BE EXTRACTED AND THE STABILITY CONTENT DETERMINED FOR METAL-ORGANIC COMPLEXES UNDER THE EXPERIMENTAL CONDITIONS. THE RESULTS OF THIS STUDY SHOULD PROVIDE INFORMATION FOR MANAGING LAND APPLICATION OF SEWAGE SLUDGE TO MINIMIZE THE MOBILITY AND BIOLOGICAL AVAILABILITY OF TOXIC METALS.

*PROJECT: 006359-EFFECTS OF AIR POLLUTANTS ON RESISTANCE OF RESPIRATORY INFECTIONS.

TASK =HC03 -920900 **EPA=R805794 ** (GRANT)
STARTING/ COMPLETION DATE : 05/78 - 05/81 : FY80

EPA OFFICER.: DE GARDNER EPA/HERL - RTP FTS 8-629-2531
INVESTIGATOR.: EHRLICH UNKNOWN
MILESTONES...: 01/79 -COMPLETE INITIAL STUDIES ON EFFECT OF SULFATES
08/79 -COMPLETE INITIAL STUDIES ON EFFECT OF NITRITES
11/79 -COMPLETE INITIAL STUDIES ON EFFECT OF SULFITES
03/79 -COMPLETE 3-MONTH EXPOSURE TO NO2 AND O3 MIXTURES
08/79 -COMPLETE 6-MONTH EXPOSURE TO NO2 AND O3 MIXTURES
09/80 -COMPLETE 12-MONTH EXPOSURE TO NO2 AND O3 MIXTURES
01/80 -INITIATE SUBCHRONIC STUDIES WITH CUSO4 AND ZNSO4
09/80 -COMPLETE STUDIES WITH CU AND ZN SULFATE.
04/81 -COMPLETE O3-SULFATE STUDIES.
PROGRAM ID...: (PE-CO3) HEALTH EFFECTS/ NON-CRIT POLL -AIR
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-006359 SSIE-HZ 809209 EPA -R805794 ORD -RH10B30-1080
PE -CO3
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THIS RESEARCH IS TO DETERMINE THE RELATIVE TOXICOLOGICAL INFLUENCE OF THE CATION VS. THE ANION OF A VARIETY OF SULFATE, NITRATE AND NITRITES SPECIES, ALONE AND IN COMBINATION. IN ADDITION, CERTAIN CHEMICALS WILL BE COMBINED ANIMAL MODEL FOR STUDIES OF MIXED BACTERIAL/VIRAL WITH A GASEOUS POLLUTANT. THE MAJOR OBJECTIVE IS TO STUDY THE EFFECTS OF THESE AIRBORN CHEMICALS ON THE RESISTANCE TO RESPIRATORY INFECTIONS AND TO ELUCIDATE THE MECHANISM OF THESE EFFECTS. IN ADDITION, ATTEMPTS TO DEVELOP AN ANIMAL MODEL FOR STUDIES OF MIXED BACTERIAL/ VIRAL INFECTIONS. USE MODEL IN SHORT/LONG TERM EXPOSURES. CHANGES IN MORTALITY RATE AND MEAN SURVIVAL TIME OF MICE CHALLENGED WITH A STREPTOCOCCUS AEROSOL FOLLOWING A 3-HR EXPOSURE TO VARIOUS SULFATE COMPOUNDS WERE COMPLETED. HIGH CONCENTRATIONS (GT1 MG/M3) OF FERROUS, ALUMINUM ZINC AND ALUMINUN AMMONIUM SULFATE DID NOT SIGNIFICANTLY ALTER THESE PARAMETERS AS COMPARED TO CONTROLS. ALUMINUM SULFATE DID INCREASE MORTALITY BUT THE CONCENTRATION WAS 1.9 MG/M3. NITRATES AND NITRITES WERE ALSO STUDIED. CD (NO3)2 ELICITED A SIGNIFICANT INCREASE IN MORTALITY AT 0.4 MG/M3. AL(NO3)3 INCREASED MORTALITY AT 2.1 G BUT NOT AT 1.0 MG/M3. A SINGLE 3 HR EXPOSURE TO CANO2, KNO2, NANO2, AND NH4NO2 FAILED TO INDUCE ANY SIGNIFICANT EFFECT EVEN THOUGH HIGH CONCENTRATION (GT3.5 MG/M3) WERE GIVEN.

·PROJECT: 006130-EFFECTS OF AIR POLLUTANTS ON RESISTANCE OF RESPIRATORY INFECTIONS.

TASK =H817 -920900 ··EPA=R805794 ·· (GRANT)
STARTING/ COMPLETION DATE : 05/78 - 05/81 : FY79

EPA OFFICER.: DE GARDNER EPA/HERL - RTP FTS 8-629-2531
INVESTIGATOR.: UNKNOWN UNKNOWN
MILESTONES...: 01/79 -COMPLETE INITIAL STUDIES ON EFFECT OF SULFATES
08/79 -COMPLETE INITIAL STUDIES ON EFFECT OF NITRITES
11/79 -COMPLETE INITIAL STUDIES ON EFFECT OF SULFITES
03/79 -COMPLETE 3-MONTH EXPOSURE TO NO2 AND O3 MIXTURES
08/79 -COMPLETE 6-MONTH EXPOSURE TO NO2 AND O3 MIXTURES
09/80 -COMPLETE 12-MONTH EXPOSURE TO NO2 AND O3 MIXTURES
01/80 -INITIATE SUBCHRONIC STUDIES WITH CUSO4 AND ZNSO4
09/80 -COMPLETE STUDIES WITH CU AND ZN SULFATE.
04/81 -COMPLETE O3-SULFATE STUDIES.
PROGRAM ID...: (PE-817) HEALTH EFFECTS/ NON-CRIT POLL - AIR
MANDATE......: 20-23 DAA FOR AIR QUALITY PLANNING AND STANDARDS
ORDIS CODES..: RECN-006130 SSIE-HZ 799209 EPA -R805794 ORD -RH10B30-2079
LABN-H817 -920900 PE -817
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THIS RESEARCH IS TO DETERMINE THE RELATIVE TOXICOLOGICAL INFLUENCE OF THE CATION VS. THE ANION OF A VARIETY OF SULFATE, NITRATE AND NITRITES SPECIES, ALONE AND IN COMBINATION. IN ADDITION, CERTAIN CHEMICALS WILL BE COMBINED ANIMAL MODEL FOR STUDIES OF MIXED BACTERIAL/VIRAL WITH A GASEOUS POLLUTANT. THE MAJOR OBJECTIVE IS TO STUDY THE EFFECTS OF THESE AIRBORN CHEMICALS ON THE RESISTANCE TO RESPIRATORY INFECTIONS AND TO ELUCIDATE THE MECHANISM OF THESE EFFECTS. IN ADDITION, ATTEMPTS TO DEVELOP AN ANIMAL MODEL FOR STUDIES OF MIXED BACTERIAL/ VIRAL INFECTIONS. USE MODEL IN SHORT/LONG TERM EXPOSURES. THE EFFECTS OF 6 OR 9 MONTHS EXPOSURE TO NO2 AND O3 MIXTURES FOLLOWED BY CHALLENGE WITH A STREPTOCOCCUS AEROSOL AND RE-EXPOSURE TO THE POLLUTANTS FOR 14 MORE DAYS WERE STUDIED IN MICE. IN THE 6-MONTH EXPOSED MICE, MORTALITY RATES OF ALL EXPERIMENTAL GROUPS WERE GREATER THAN THE CONTROLS HOWEVER, THE ONLY GROUP WHERE THE DIFFERENCE WAS STATISTICALLY SIGNIFICANT WAS EXPOSED CONTINUOUSLY TO A BACKGROUND CONCENTRATION OF 0.1 PPM NO2 WITH SUPERIMPOSED 3 HR/DAY, 5 DAY/WEEK PEAKS OF 0.5 PPM NO2 AND 0.1 PPM O3. THE DIFFERENCE IN MORTALITY RATE BETWEEN THE CONTROLS AND THE OTHER THREE EXPERIMENTAL GROUPS, 0.1 PPM O3 ALONE, 0.5 PPM NO2 ALONE, AND 0.1 PPM O3 AND 0.5 PPM NO2 IN MIXTURE (ALL 3 HR/DAY, 5 DAYS/WEEK) APPROACHED SIGNIFICANCE (.05GT PLT .10). THE MEAN SURVIVAL TIMES OF THE EXPERIMENTAL GROUPS DID NOT DIFFER FROM THE CONTROLS. IN THE 9-MONTH EXPOSED MICE UNUSUALLY HIGH MORTALITIES IN THE CONTROL MICE PRECLUDED MEANINGFUL ASSESSMENT OF TREATMENT DIFFERENCES. THE RESPIRATORY TRACTS OF THREE MICE EACH FROM THE CONTROL AND TWO NO2 AND O3 MIXTURE GROUPS OF THE 9-MONTH EXPOSURE STUDY WERE EXAMINED BY SCANNING ELECTRON MICROSCOPY. SOME TERMINAL BRONCHI WERE DEVOID OF CILIA IN BOTH EXPERIMENTAL GROUPS. THICKENED ALVEOLI WERE PRESENT IN MICE EXPOSED TO THE NO2 AND O3 MIXTURE. ALVEOLI WERE THICKENED AND FUSED IN MICE EXPOSED TO THE BACKGROUND NO2 AS WELL AS THE NO2 AND O3 MIXTURE. IN SOME INSTANCES, INDIVIDUAL ALVEOLI WERE NOT DISCERNIBLE. AN INITIAL STUDY OF THE EFFECTS OF NITRITE AEROSOLS WAS CARRIED OUT. ACUTE 3-HR EXPOSURE TO 4.73 MG/M3 NANO2 ELICITED NO ALTERATIONS IN MORTALITY RATE OR MEAN SURVIVAL TIME OF MICE CHALLENGED WITH A STREPTOCOCCUS AEROSOL.

*PROJECT: 004724-DEMONSTRATION OF THE SWIRL, HELICAL BEND AND TEACUP REGULATOR/SEPARATOR
AS STORM SEWER CONTROL DEVICES
TASK =CC35 -S2T012 **EPA=S805795 ** (GRANT)
STARTING/ COMPLETION DATE : 03/78 - 12/80 : FY80

EPA OFFICER.: RP TRAVER EPA/MERL - CINC FTS-8-340-6677
INVESTIGATOR.: WC PISANO BOSTON CITY GOVERNMENT BOSTON MA
G ARONSON BOSTON CITY GOVERNMENT BOSTON MA
MILESTONES....: 08/78 -DETAILED SITE CLASSIFICATION, COMPUTER MODELING
02/79 -SITE PREPARATION
06/79 -COMPLETE INSTALLATION OF POLLUTION CONTROL DEVICES
06/80 -COMPLETE FIELD EVALUATION PROGRAM
09/80 -DRAFT FINAL REPORT
PROGRAM ID....: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
30-99 URBAN RUNOFF TREATMENT
CURR. RESULTS: INSTALLATION OF SWIRL + HELICAL BEND DEVICES
COMPLETE.
ORDIS CODES...: RECN-004724 SSIE-GMA 5877 1 EPA -S805795 ORD -RC10B30-5080
LABN-C822A-S2T012 PE -C35
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: THE SWIRL, HELICAL BEND AND TEACUP CONCENTRATOR/REGULATORS ARE BEING EVALUATED UTILIZING THREE 6 CFS STORMWATER AND SIMULATED COMBINED SEWER WASTE STREAMS. THE TEACUP SEPARATOR WILL ALSO BE EVALUATED AS A RAW SEWAGE TREATMENT DEVICE. APPROACH: THE PROJECT INVOLVES DESIGN, FABRICATION, INSTALLATION AND TESTING OF THE SWIRL HELICAL BEND AND TEACUP REGULATOR/SEPARATORS FOR AN EIGHT MONTH PERIOD.

*PROJECT: 003781-QUANTITATIVE CHARACTERIZATION OF GREAT LAKES PHYTOPLANKTON POPULATIONS

TASK =N769 -000040 **EPA=R805796-01 ** (GRANT)
STARTING/ COMPLETION DATE : 02/78 - 04/80 : FY79

EPA OFFICER.:	NA THOMAS	EPA/ERL - DULUTH	FTS 8-226-7811
INVESTIGATOR.:	EF STOERMER	UNIV OF MICHIGAN	GRADUATE SCHOOL
	L SICKO GOAD	UNIV OF MICHIGAN	GRADUATE SCHOOL
	TB LADEWSKI	UNIV OF MICHIGAN	GRADUATE SCHOOL
	RG KRIES	UNIV OF MICHIGAN	GRADUATE SCHOOL

MILESTONES...: 04/80 -FINAL REPORT: ECO. IMPORTANT PHYTOPLANKTON IN RELATION TO POLL. STRESSES
09/80 -ECOLOGICAL RESEARCH SERIES REPORT
PROGRAM ID...: (PE-769) GREAT LAKES PROGRAM
FINAL OUTPUT.: ECOLOGICAL RESEARCH SERIES REPORT
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODE...: RECN-003781 SSIE-GMA 5210 1 EPA -R805796-01 ORD -RN10B30-1079
PE -769
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: THE PRIMARY OBJECTIVES OF THIS PROJECT IS TO PROVIDE A COMPLETE CHARACTERIZATION OF CERTAIN ECOLOGICALLY IMPORTANT PHYTOPLANKTON POPULATIONS OCCURRING IN THE LAURENTIAN GREAT LAKES. THE MAIN TOPICS WHICH WILL BE ADDRESSED INCLUDE: 1. THE RANGE IN SIZE AND MORPHOLOGICAL PLASTICITY OF QUANTITATIVELY IMPORTANT PHYTOPLANKTON POPULATIONS OCCURRING IN THE LAURENTIAN GREAT LAKES. 2. THE PRESENTLY DOCUMENTED DISTRIBUTION OF THESE POPULATIONS WITHIN THE GREAT LAKES SYSTEM. 3. QUANTITATIVE ANALYSIS OF EXTERNAL FORM AND INTERNAL CELLULAR CONSTITUENTS AND MODIFICATIONS WHICH OCCUR DURING THE ORGANISMS NORMAL LIFE CYCLE. 4. THE SPECIFIC EFFECTS OF EXTERNAL ENVIRONMENTAL FACTORS IN MODIFYING CELLULAR MORPHOLOGY. THE WORK IS DESIGNED TO SUPPORT BOTH CLASSICAL POPULATION DISTRIBUTION BASED UPON WATER QUALITY ASSESSMENT AND THE DEVELOPMENT OF MORE REALISTIC MULTIPLE PHYSIOLOGICAL COMPARTMENT MODELS OF PHYTOPLANKTON DYNAMICS. THE PROBLEM WILL BE APPROACHED PRIMARILY THROUGH THE APPLICATION OF QUANTITATIVE LIGHT AND ELECTRON MICROSCOPY (STEREOLOGY) OF BOTH NATURALLY OCCURRING POPULATIONS AND POPULATIONS EXPOSED TO CONTROLLED ENVIRONMENTAL PERTURBATION.

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*PROJECT: 001115-A STUDY OF THE DISTRIBUTION AND HEALTH EFFECTS OF GIARDIA LAMBLIA IN
                 DOMESTIC WATER SUPPLY
                  TASK =DC60 -5B0005 **EPA=R805809     ** (GRANT)
                  STARTING/ COMPLETION DATE : 04/78 - 03/81 :   FY80
  EPA  OFFICER.: W  JAKUBOWSKI             EPA/HERL - CINC                    FTS 8-684-7385
  INVESTIGATOR.: F  FROST                  STATE HEALTH DIV                   SOC/HLTH SERVICES DEPT
  MILESTONES...: 07/79 -INTERIM REPORT - CASE-FINDING AND ANIMAL POSITIVITY DATA
                 04/80 -COMPLETION OF CASE-CONTROL STUDY
                 08/80 -ASSESSMENT OF WATERBORNE TRANSMISSION
                 03/81 -FINAL REPORT ON HUMAN STOOL SURVEY
  PROGRAM ID...: (PE-C60 )           HEALTH EFFECTS  - DRINKING WATER
  FINAL OUTPUT.: FINAL REPORT ON HUMAN STOOL SURVEY
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
                 20-13     DAA FOR DRINKING WATER
  CURR. RESULTS: WIDESPREAD DISTRIBUTION OF HUMAN CASES OF
                 GIARDIASIS HAS BEEN REVEALED IN WASHINGTON STATE.
                 INFECTED BEAVER AND MUSKRAT FOUND IN 20 COUNTIES.
                 GIARDIASIS OCCURS IN MANY SMALL OUTBREAKS. AMONG
                 TRAVELERS, PERSONS WITH BACKCOUNTRY EXPOSURE,
                 CHILDREN AND IN ISOLATED CASES WITH NO OBVIOUS SOURCE.
  ORDIS CODES..: RECN-001115           SSIE-GMA  5377 2      EPA -R805809         ORD -RD10B30-5080
                 LABN-D823B-011A       PE  -C60
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DETERMINE THE OCCURRENCE OF GIARDIASIS IN HUMAN POPULATIONS AND THE OCCURRENCE OF GIARDIA
                  IN WATERSHED ANIMAL POPULATIONS IN WASHINGTON STATE; DETERMINE THE EXTENT TO WHICH WATER SUPPLIES
                  MAY ACT AS THE VEHICLE FOR TRANSMISSION OF GIARDIASIS. APPROACH: CONTACTS WILL BE MADE WITH ALL
                  PHYSICIANS AND DIAGNOSTIC LABORATORIES IN THE STATE TO IMPROVE CASE REPORTING; 5-YEAR RETROSPECTIVE
                  DATA WILL BE ANALYZED TO DETERMINE SEASONALITY; A CASE-CONTROL STUDY WILL BE COMPLETED TO DETERMINE
                  ASSOCIATION OF CASES WITH DRINKING WATER; SPECIMENS OF ANIMAL INTESTINAL CONTENTS WILL BE SOLICITED
                  FROM TRAPPERS; FILTERED WATER SAMPLES WILL BE EXAMINED FOR THE ORGANISM.


*PROJECT: 005189-SMOG CHAMBER STUDY OF AROMATICS

                  TASK =GC05 -000295 **EPA=R805812-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 06/79 - 06/82 :   FY80
  EPA  OFFICER.: MC DODGE                  EPA/ESRL - RTP                     FTS 8-629-2374
  INVESTIGATOR.: CW SPICER                 BATTELLE MEMORIAL INST             COLUMBUS                    OH 43201
  MILESTONES...: 06/82 -FINAL REPORT
  PROGRAM ID...: (PE-C05 )           TRANS. AND FATE - AIR
  MANDATE......: 10-02     CLEAN AIR ACT
  ORDIS CODES..: RECN-005189           SSIE-GMA  6122 1      EPA -R805812-02       ORD -RG10B30-1080
                 LABN-G603A-AC-044     PE  -C05
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS STUDY IS TO IDENTIFY THE PRODUCTS OF AROMATIC/NOX PHOTOCHEMICAL
                  REACTION PROCESSES. APPROACH: GC/IR AND GC/MS TECHNIQUES WILL BE USED TO ELUCIDATE THE PRODUCTS
                  FORMED WHEN AROMATIC/NOX SYSTEMS ARE IRRADIATED IN BOTH A 200 LITER CHAMBER OPERATED IN A DYNAMIC
                  MODE AND IN A 17.3 CUBIC M CHAMBER OPERATED UNDER STATIC CONDITIONS.
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-PROJECT: 001810-KINETICS AND MECHANISMS OF NITRATE FORMATION IN PHOTOCHEMICAL SMOG

                  TASK =G832B-EA-145 --EPA=R805812-02  -- (GRANT)
                  STARTING/ COMPLETION DATE : 01/78 - 02/81 :   FY79
 EPA  OFFICER..: JJ BUFALINI               EPA/ESRL - RTP                919-541-2422
 INVESTIGATOR..: CW SPICER                 BATTELLE MEMORIAL INST        COLUMBUS                OH 43201
 MILESTONES....: 02/81 -FINAL REPORT
 PROGRAM ID....: (PE-832 )          TRANSPORTATION & FATE- ENERGY
 MANDATE.......: 10-02     CLEAN AIR ACT
 CURR. RESULTS: SERIES OF RUNS PERFORMED TO DETERMINE BACKGROUND
                 LOSS CHARACTERISTICS OF SMOG CHAMBER.
 ORDIS CODES...: RECN-001810          SSIE-GMA  4908 2      EPA -R805812-02       ORD -RG10831-1079
                 LABN-G832B-EA-161    PE  -832
 PROJ STATUS...: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  JAN-MAR 80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT......: OBJECTIVE: THE OBJECTIVES OF THIS WORK ARE (1) TO DETERMINE THE FATE (  NOX IN THE ATMOSPHERE AND
                  (2) TO CONDUCT MODELING AND ATMOSPHERIC STUDIES TO SITE 5 RESEARCH MO IITORING STATIONS FOR
                  NITRATES, ORGANICS, AND SULFATES IN THE OHIO RIVER BASIN. APPROACH:  HE FATE OF NOX WILL BE
                  DETERMINED IN SMOG CHANGERS THAT SIMULATE ACTUAL ATMOSPHERIC CONDITIONS. EXPERIMENTS WILL BE
                 -PERFORMED ON NC/NOX MIXTURES FOR THE SPECIFIC PURPOSE OF IDENTIFYING THE CHEMICAL AND PHYSICAL
                  REMOVAL PROCESSES OF NOX. (2) REGION TRANSPORT/TRANSFORMATION MODELING WILL BE CONDUCTED TO
                  IDENTIFY AREAS THAT WILL BE MEASURABLY IMPACTED BY THE OPERATION OF NEW POWER PLANTS ON THE OHIO
                  RIVER. AERIAL PROFILING OF POLLUTANT CONCENTRATIONS WILL BE DONE TO DEMONSTRATE THAT SITES ARE NOT
                  UNDER LOCAL INFLUENCE.
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*PROJECT: 006627-EFFECT OF INSECTICIDES ON BENZO(A)PYRENE CARCINOGENESIS

TASK *HC86 -946600 *-EPA*R805819 ** (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 09/81 : FY80

EPA OFFICER..: S NESNOW EPA/HERL - RTP FTS 8-629-2693
INVESTIGATOR..: UNKNOWN THOMAS JEFFERSON UNIV PHILADELPHIA PA 19107
MILESTONES....: 08/80 -STUDY CAPTAN AND TRIFLURALIN
02/81 -STUDY ONCOGENICITY OF ISOMERS OF BHC
03/82 -FINAL REPORT
PROGRAM ID....: (PE-C86) HEALTH EFFECTS - PESTICIDES
MANDATE.......: 10-03 TOXIC SUBSTANCES CONTROL ACT
ORDIS CODES...: RECN-006627 SSIE-HZ 809466 EPA -R805819 ORD -RH10830-1080
PE -C86
PROJ STATUS...: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: TO STUDY INTERACTIONS OF COMMONLY USED PESTICIDES AND A KNOWN ENVIRONMENTAL ONCOGENIC AGENT BENZO(A)PYRENE IN RODENT BIOASSAYS. IN ADDITION TO THE MEASUREMENT OF BIOLOGICAL EFFECTS (TUMOR FORMATION) THE EFFECT OF PESTICIDES ON BIOCHEMICAL SYSTEMS SUCH AS THE LEVEL OF TISSUE ENZYMES WHICH ACTIVATE CARCINOGENS WILL BE STUDIED. CORRELATIONS WILL BE MADE TO DETERMINE WHETHER ANY CHANGE IN THESE ENZYME ACTIVITIES MAY INFLUENCE THE ONCOGENICITY OF BENZO(A)PYRENE. A STUDY HAS BEEN COMPLETED TO DETERMINE THE INTERACTION OF THE FUNGICIDE CAPTAN ON THE TUMORIGENICITY OF BENZO(A)PYRENE IN A LUNG TUMOR MODEL UTILIZING A/J MICE. MICE WERE FED TWO DOSAGE LEVELS (625 AND 1250 PPM) OF CAPTAN IN THE DIET, AND BENZO(A)PYRENE WAS ADMINISTERED ORALLY ON THE 7TH AND 21ST DAY AFTER THE FEEDING WAS INITIATED. AFTER 14 WEEKS ON THE DIET, THE GROUP FED 1250 PPM CAPTAN HAD A SIGNIFICANTLY SMALLER PERCENTAGE OF MICE WITH LUNG TUMORS COMPARED TO THE CONTROL GROUP. THE PERCENTAGE OF MICE WITH FORESTOMACH TUMORS WAS ALSO LOWER IN THE GROUP FED 1250 PPM CAPTAN THAN IN THE CONTROLS. THERE WAS NO CHANGE IN BENZO(A)PYRENE METABOLIZING ENZYMES IN LIVER, LUNG, OR FORESTOMACH AFTER TREATMENT WITH EITHER DOSE OF CAPTAN. EXPERIMENTS WILL BE REPEATED UTILIZING DOSAGE LEVELS OF 1250 AND 1875 PPM CAPTAN IN THE DIET IN AN ATTEMPT TO OBTAIN A DOSE EFFECT RELATIONSHIP. THIS PRELIMINATRY EVIDENCE SUGGESTS THAT CAPTAN INHIBITS BENZO(A)PYRENE TUMORIGENESIS UNDER THE TEST CONDITIONS.

-PROJECT: 006304-EFFECT OF INSECTICIDES ON BENZO(A)PYRENE CARCINOGENESIS

TASK -H615 -946600 --EPA-R805819 -- (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 09/81 : FY79

EPA OFFICER..: RL BARON EPA/HERL - RTP FTS 8-629-2655
INVESTIGATOR..: UNKNOWN THOMAS JEFFERSON UNIV PHILADELPHIA PA 19107
MILESTONES....: 08/80 -STUDY CAPTAN AND TRIFLURALIN
02/81 -STUDY ONCOGENICITY OF ISOMERS OF BHC
03/82 -FINAL REPORT
PROGRAM ID....: (PE-615) HEALTH EFFECTS - PESTICIDES
MANDATE.......: 30-31 DAA FOR TESTING AND EVALUATIONS
ORDIS CODES...: RECN-006304 SSIE-HZ 799466 EPA -R805819 ORD -RH10830-2079
LABN-H615 -946600 PE -615
PROJ STATUS...: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: TO STUDY INTERACTIONS OF COMMONLY USED PESTICIDES AND A KNOWN ENVIRONMENTAL ONCOGENIC AGENT BENZO(A)PYRENE IN RODENT BIOASSAYS. IN ADDITION TO THE MEASUREMENT OF BIOLOGICAL EFFECTS (TUMOR FORMATION) THE EFFECT OF PESTICIDES ON BIOCHEMICAL SYSTEMS SUCH AS THE LEVEL OF TISSUE ENZYMES WHICH ACTIVATE CARCINOGENS WILL BE STUDIED. CORRELATIONS WILL BE MADE TO DETERMINE WHETHER ANY CHANGE IN THESE ENZYME ACTIVITIES MAY INFLUENCE THE ONCOGENICITY OF BENZO(A)PYRENE.

-PROJECT: 001814-PAN CONCENTRATION IN AMBIENT AIR IN NEW JERSEY

TASK -G603A-AD-025 --EPA-R805827-02 -- (GRANT)
STARTING/ COMPLETION DATE : 03/78 - 06/80 : FY79

EPA OFFICER..: JJ BUFALINI EPA/ESRL - RTP 919-541-2422
INVESTIGATOR..: EG BRENNAN RUTGERS UNIV DEPT. OF PLANT PATHOLOGY
MILESTONES....: 06/80 -FINAL REPORT ON PAN CONCENTRATIONS
PROGRAM ID....: (PE-603) TRANS. AND FATE -AIR
FINAL OUTPUT..: REPORT ON PAN CONCENTRATIONS
MANDATE.......: 10-02 CLEAN AIR ACT
20-R01 EPA REGION I
20-R01 EPA REGION I
CURR. RESULTS: PAN/O3 RATIO ARE OBSERVED TO BE HIGH SUGGESTING A MALFUNCTIONING O3 DETECTOR.
ORDIS CODES...: RECN-001814 SSIE-GMA 4902 1 EPA -R805827-02 ORD -RG10830-5079
LABN-G603A-AC-030 PE -603
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: AMBIENT AIR WILL BE MONITORED FOR PEROXYACETYL NITRATE FROM APRIL 1979 TO APRIL 1980. THE PAN CONCENTRATION WILL BE EXAMINED WITH RESPECT TO WIND SPEED AND DIRECTION. PLANTS SENSITIVE TO PAN WILL ALSO BE STUDIED FOR PLANT DAMAGE. APPROACH: AMBIENT AIR IS EITHER TRAPPED IN A CRYOGENIC CONTAINER AND LATER INTRODUCED INTO A GAS CHROMATOGRAPH OR THE AIR SAMPLE IS INTRODUCED DIRECTLY INTO THE G.C. PAN-SENSITIVE PLANTS ARE PLACED OUT AND EXPOSED TO THE AMBIENT AIR. LEAF DAMAGE IS OBSERVED. RESULTS TO DATE: PAN AND O3 HAVE BEEN STUDIED FROM AUGUST 1978 TO PRESENT. THE PAN MAXIMUM WAS OBSERVED TO BE 10.5 PPB IN AUGUST. THE PAN/O3 RATIO WERE OBSERVED TO BE HIGH SUGGESTING A MALFUNCTIONING O3 DETECTOR.

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*PROJECT: 005495-MECHANISMS OF INTESTINAL CADMIUM ABSORPTION IN RATS

               TASK *DC27 -1E0004 **EPA*R805840-03  ** (GRANT)
               STARTING/ COMPLETION DATE : 05/78 - 05/81 :   FY80
EPA OFFICER.  : NE KOWAL                  EPA/HERL - CINC                 FTS 8-684-7477
INVESTIGATOR..: EC FOULKES                UNIV OF CINCINNATI              CIV & CIV ENG DEPT
                N  SUGAWARA               UNIV OF CINCINNATI              CIV & CIV ENG DEPT
                C  VONER                  UNIV OF CINCINNATI              CIV & CIV ENG DEPT
MILESTONES....: 05/79 -REPORT: MECHANISMS INVOLVED IN INTESTINAL ABSORPTION OF CD IN RAT
                08/79 -QUARTERLY REPORT
                11/79 -QUARTERLY REPORT
                02/80 -QUARTERLY REPORT
                03/80 -INTERIM REPORT
                05/81 -FINAL REPORT OF PROGRESS MADE ON THE NATURE AND KINETICS OF CADMIUM TRANSPORT I
PROGRAM ID....: (PE-C27 )           HEALTH EFFECTS - WATER QUALITY
FINAL OUTPUT..: REPORT OF PROGRESS MADE ON NATURE AND KINETICS
                OF CADMIUM TRANSPORT IN RAT GUT
MANDATE.......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
                20-12      DAA FOR WATER PROGRAM OPERATIONS
                30-99      PHYSIOLOGY, BIOCHEMISTRY
CURR. RESULTS:  ACCOMPLISHMENTS FOR FIRST 2 YEARS DEALT WITH MECHANISM
                OF UPTAKE OF CADMIUM FROM LUMEN, INHIBITION OF UPTAKE OF
                CALCIUM AND ZINC, ENDOGENOUS (GUT FLUID) MODULATORS OF
                CADMIUM UPTAKE, MAGNITUDE OF SECOND PHASE OF CADMIUM
                ABSORPTION, AND FACTORS CONTROLLING CADMIUM RETENTION AND
                RELEASE FROM INTESTINAL CELLS.
ORDIS CODES...: RECN-005495        SSIE-GMA  5142 2      EPA -R805840-03       ORD -RD10B30-5080
                LABN-D607A-009C    PE  -C27
PROJ STATUS ..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH     ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: THE MAIN OBJECTIVE IS TO PROVIDE INFORMATION TO HELP IN THE EVALUATION OF POTENTIAL RISKS
                 FROM ORAL EXPOSURE TO CADMIUM. ONE SPECIFIC AIM IS TO DETERMINE WHETHER OR NOT THE KINETICS OF THE
                 TRANSPORT SYSTEM FOR CADMIUM AND CALCIUM BETWEEN THE INTESTINAL LUMEN AND WALL ARE COMPETITIVE IN
                 NATURE. A SECOND OBJECTIVE IS TO CHARACTERIZE CADMIUM TRANSPORT VARIATIONS BETWEEN THE DUODENUM,
                 JEJUNUM AND ILEUM. AN ATTEMPT WILL BE MADE TO DETERMINE WHETHER DIFFERENCES IN ACTIVITY CAN BE
                 ATTRIBUTED TO CHANGES IN VMAX AND/OR KM OF THE TRANSPORT SYSTEM. APPROACH: INTESTINAL ABSORPTION OF
                 CADMIUM IN RATS WILL BE ASCERTAINED BY USING A PREPARATION INVOLVING ISOLATED SEGMENTS OF DUODENUM,
                 JEJUNUM AND ILEUM IN SITU UNDER CONDITIONS OF A STEADY-STATE SINGLE PASSAGE TECHNIQUE. FOR THESE
                 STUDIES CADMIUM TRACER (109 CD) IS ADDED TO THE LUMINAL PERFUSATE TOGETHER WITH A VOLUME MARKER AND
                 DISAPPEARANCE OF THE LABEL FROM THE LUMEN IS MEASURED.
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*PROJECT: 004806-OUTDOOR SMOG CHAMBER EXPERIMENTS TO TEST PHOTOCHEMICAL MODELS

                 TASK =GC05 -000311 **EPA=R805843-02  ** (GRANT)
                 STARTING/ COMPLETION DATE : 00/79 - 05/81 :   FY80
  EPA  OFFICER..: MC DODGE               EPA/ESRL - RTP                   FTS 8-629-2374
  INVESTIGATOR..: HE JEFFRIES            UNIV OF NORTH CAROLINA           DEPT OF ENV SCI & ENGIN
                  RM KAMENS              UNIV OF NORTH CAROLINA           DEPT OF ENV SCI & ENGIN
  MILESTONES....: 10/81 -ORD FINAL REPORT
  PROGRAM ID....: (PE-C05 )           TRANS. AND FATE - AIR
  MANDATE.......: 10-02     CLEAN AIR ACT
                  20-20     AA FOR AIR AND WASTE MANAGEMENT
  CURR. RESULTS.: DATA FOR 38 PAIRS OF SMOG CHAMBER RUNS PROCESSED AND
                  MADE AVAILABLE TO PHOTOCHEMICAL MODELERS FOR ANALYSIS.
  ORDIS CODES...: RECN-004806          SSIE-GMA  5986 1      EPA -R805843-02       ORD -RG10B30-5090
                  LABN-G603A-AD-04     PE  -C05
  PROJ STATUS...: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                  CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT......: OBJECTIVE: THE OBJECTIVE OF THIS PROJECT IS TO PERFORM OUTDOOR SMOG CHAMBER EXPERIMENTS FOR THE
                   PURPOSE OF ACQUIRING OPTIMUM DATA FOR THE TESTING AND REFINEMENT OF PHOTOCHEMICAL MODELS. APPROACH
                   SMOG CHAMBER REACTANT AND PRODUCT CONCENTRATIONS ARE MEASURED AS A FUNCTION OF TIME. THE CHAMBER IS
                   OPERATED UNDER CONDITIONS OF NATURAL SUNLIGHT, TEMPERATURE AND RELATIVE HUMIDITY.


*PROJECT: 001123-CANCER INCIDENCE IN RELATION TO ASBESTOS IN DRINKING WATER IN THE PUGET
                  SOUND REGION
                 TASK =D823B-038C00 **EPA=R805846-02  ** (GRANT)
                 STARTING/ COMPLETION DATE : 04/78 - 05/81 :   FY79
  EPA  OFFICER..: LJ MCCABE              EPA/HERL - CINC                  513-684-7211
  INVESTIGATOR..: L  POLISSAR            FRED HUTCHINSON RES CTR          PROG IN EPIDEM & BIOSTATS
                  DB THOMAS              FRED HUTCHINSON RES CTR          PROG IN EPIDEM & BIOSTATS
                  ES BOATMAN             UNIV OF WASHINGTON               SEATTLE                  WA 98195
                  W  HINDS               STATE DEPT SOC/HLTH SERV         OLYMPIA                  WA 98501
  MILESTONES....: 04/78 -START
                  01/79 -REPORT ON CANCER INCIDENCE AND MORTALITY RATES
                  01/80 -REPORT ON OCCUPATIONALLY LINKED CANCER
                  04/81 -REPORT ON CASE CONTROL STUDY
  PROGRAM ID....: (PE-823 )           HEALTH EFFECTS  -DRINKING WATER
  FINAL OUTPUT..: REPORT ON CASE-CONTROL STUDY
  MANDATE.......: 10-15     SAFE DRINKING WATER ACT
  ORDIS CODES...: RECN-001123          SSIE-GMA  5388 1      EPA -R805846-02       ORD -RD10B30-1079
                  LABN-D614B-016       PE  -823
  PROJ STATUS...: PROJECT-ACTIVE       INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                  CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT......: CANCER MORTALITY AND INCIDENCE DATA WILL BE USED TO DETERMINE IF THERE IS AN ELEVATED CANCER RISK
                   FOR THOSE PERSONS LIVING IN AREAS OF THE PUGET SOUND REGION WITH A HIGH CONCENTRATION OF ASBESTOS
                   IN THE WATER SUPPLY. DATA WILL INCLUDE DEATH CERTIFICATES, INCIDENCE RECORDS FROM SEER
                   POPULATION-BASED TUMOR REGISTRY, CENSUS TABULATIONS, AND WATER ANALYSES. STATISTICAL METHODS WILL
                   INCLUDE CALCULATIONS OF RATES AND RELATIVE RISKS. A CASE-CONTROL STUDY WILL BE UNDERTAKEN.
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*PROJECT: 005038-DEVELOPMENT OF A NATIONAL LIBRARY CENTER FOR GROUND WATER INFORMATION

                  TASK =L824C-000018 **EPA=R805863      ** (GRANT)
                  STARTING/ COMPLETION DATE : 05/78 - 04/81 :   FY79
 EPA  OFFICER.: WJ DUNLAP                EPA/ERL - ADA                    FTS 8-743-2313
 INVESTIGATOR.: JH LEHR                  NATL WAT WELL ASSN RES FAC       WORTHINGTON          OH 43085
                J  POLAND                NATL WAT WELL ASSN RES FAC       WORTHINGTON          OH 43085
 MILESTONES....: 02/80 -COMPLETE DEVELOPMENT OF GROUND WATER THESAURUS
                08/80 -COMPLETE INITIAL EXTERNAL EVALUATION OF SYSTEM, PRODUCE USERS MANUAL
                04/81 -COMPILE FINAL EVALUATION OF ALL ASPECTS OF DATA BASE DEVELOPMENT, OPERATION, AN
 PROGRAM ID....: (PE-824 )          DRINK WATER TREAT & GROUND WATER PROT  -DRINKING WATER
 MANDATE.......: 10-15     SAFE DRINKING WATER ACT
 CURR. RESULTS: EXTENSIVE LITERATURE SEARCH
                A THESAURUS OF GROUND WATER TERMS HAS BEEN DEVELOPED AND
                REFINED BASED ON COMMENTS OF QUALIFIED EVALUATORS.
 ORDIS CODES...: RECN-005038        SSIE-GMA  6024       EPA -R805863        ORD -RL10B30-1079
                LABN-L614C-018      PE  -824
 PROJ STATUS...: ACTIVE -MULTIYEAR   INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH   ACCESS-PUBLIC
 ABSTRACT......: OBJECTIVE: BECAUSE OF SEVERE DOCUMENTATION PROBLEMS EXISTING IN THE AREA OF GROUND WATER TECHNOLOGY,
                 THE NATIONAL WATER WELL ASSOCIATION IS DEVELOPING AN INTERACTIVE BIBLIOGRAPHIC DATA BASE
                 ENCOMPASSING THE WORLD'S SIGNIFICANT LITERATURE CONCERNING AQUIFERS, GROUND WATER HYDRAULICS,
                 GROUND WATER POLLUTION AND POLLUTION CONTROL, GROUND WATER RESOURCE MANAGEMENT, AND WATER WELL
                 CONSTRUCTION. THE DATA BASE WILL INCLUDE AN UP-TO-DATE COMPUTER ACCESS SYSTEM COMPATIBLE WITH
                 CURRENT STANDARS. APPROACH: A THESAURUS OF GROUND WATER DESCRIPTORS, COMPRISED MOSTLY OF
                 HYDROGEOLOGIC TERMS ARRANGED IN HIERARCHICAL ORDER, WILL BE DEVELOPED. THIS THESAURUS WILL COMPRISE
                 ONE OF SEVERAL FIELDS, INCLUDING AUTHOR, TITLE, JOURNAL, GEOGRAPHIC REGION, MAJOR AQUIFER REGION,
                 AND CHEMICAL CONSTITUENTS, WHICH WILL BE USED FOR INDEXING AND ENTERING OF LITERATURE, AND WHICH
                 WILL PROVIDE ACCESS TO THE DATA BASE. THE THESAURUS WILL BE EVALUATED BY A PANEL OF GROUND WATER
                 EXPERTS AND MODIFIED APPROPRIATELY. AS DEVELOPMENT OF THE DATA BASE AND COMPUTER ACCESS SYSTEM
                 PROCEEDS, SYSTEM OPERATION WILL BE ASSESSED BY QUALIFIED EXTERNAL EVALUATORS TO PROVIDE A BASIS FOR
                 REFINEMENT TO ATTAIN MAXIMUM FLEXIBILITY AND EFFECTIVENESS IN MEETING USER NEEDS. A USER'S GUIDE TO
                 THE DATA BASE WILL BE PRODUCED, AND ACTIVITIES REQUIRED TO BRING THE DATA BASE TO THE ATTENTION OF
                 POTENTIAL USERS WILL BE CONDUCTED.
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•PROJECT: 001049-DEVELOPMENT AND EVALUATION OF AN AMBIENT VIABLE MICROBIAL AIR SAMPLER

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                 TASK =DC27 -1C0003 ••EPA=R805864      •• (GRANT)
                 STARTING/ COMPLETION DATE : 10/78 - 10/80 :   FY80
EPA OFFICER..: W  JAKUBOWSKI            EPA/HERL - CINC                 FTS 8-684-7385
INVESTIGATOR.: KF FANNIN                I I T RES INST                  CHICAGO                IL 60616
MILESTONES...: 04/79 -INTERIM REPORT - RECOMMENDED SAMPLER DESIGNS
               12/79 -FABRICATION OF PROTOTYPE - PRELIMINARY EVALUATION
               04/80 -RECOMMENDATION OF SAMPLER FOR USE IN HEALTH EFFECTS STUDIES
               10/80 -FINAL REPORT - PROTOTYPE AMBIENT VIABLE MICROBIAL AIR SAMPLER
PROGRAM ID...: (PE-C27 )          HEALTH EFFECTS - WATER QUALITY
FINAL OUTPUT.: RECOMMENDATION OF SAMPLER FOR USE IN HEALTH EFFECTS
               STUDIES.
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
               20-12     DAA FOR WATER PROGRAM OPERATIONS
               20-R05    EPA REGION V
CURR. RESULTS: REVIEW PHASE COMPLETED AND MODIFICATION OF EXISTING
               CYCLONE SCRUBBER-TYPE SAMPLER IN PROGRESS.  COLLECTION
               SUBSTRATE FOR APPLICATION IN A VIRTUAL IMPACTOR-TYPE
               SAMPLER DEVELOPED AND WILL BE EVALUATED.  PROTOTYPE
               GLASS CYCLONE SCRUBBER CONSTRUCTED AND BEING EVALUATED.
ORDIS CODES..: RECN-001049         SSIE-GMA  5143 2      EPA -R805864         ORD -RD10B20-5090
               LABN-D607A-050      PE  -C27
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED- 06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DEVELOP AND EVALUATE INSTRUMENTATION TO ENHANCE EXISTING CAPABILITIES FOR QUANTITATIVE
                DETECTION OF VIABLE MICROORGANISMS IN AMBIENT AIR. APPROACH: IN THE FIRST PHASE, EXISTING DESIGN
                WILL BE REVIEWED AND ALTERNATIVES WILL BE DEVELOPED. A NEW DESIGN WILL BE DEVELOPED OR
                MODIFICATIONS WILL BE SUGGESTED TO EXISTING SAMPLERS AND A PROTOTYPE WILL BE CONSTRUCTED IN PHASE
                2. IN PHASE 3, THE PROTOTYPE WILL BE EVALUATED FOR COLLECTION EFFICIENCY, VIABILITY MAINTENANCE,
                SENSITIVITY AND PARTICLE SIZE DISCRIMINATION.
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*PROJECT: 004317-PRESERVATION AND DETERMINATION OF CR(III) AND/OR CR(VI)

                 TASK =A622B-000047 **EPA=R805877-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 12/78 - 03/80 :   FY79
 EPA  OFFICER.: MF GALES                   EPA/EMSL - CINC                      513-684-7307
 INVESTIGATOR.: BT DUHART                  UNIV OF ARKANSAS                     DEPT OF CHEM
 MILESTONES...: 12/78 -DETERMINE THE EFFECT OF TIME AND PH ON THE PRESERVATION OF CHROMIUM
                05/79 -DETERMINE EFFECTS OF TEMPERATURE
                03/80 -EVALUATE THE USEFULNESS OF THE ENDICO SAMPLING DEVICES
 PROGRAM ID...: (PE-622 )          TECHNICAL SUPPORT -INTERDISCIPLINARY
 MANDATE......: 20-99     UNIV ARKANSAS/PINE BLUFF
 CURR. RESULTS: DR. DUHART HAS EVALUATED THE EFFECTS OF PH AND TIME ON THE
                PRESERATION OF CHROMIUM
 ORDIS CODES..: RECN-004317         SSIE-GMA  5623        EPA -R805877-01       ORD -RA10C30-2079
                LABN-A622 -047      PE  -622
 PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH   ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: DEVELOP A PROCEDURE FOR THE PRESERVATION OF CR(III) AND CR(VI). APPROACH: THE ANALYTICAL
                 TECHNIQUES USED WILL BE ATOMIC ABSORPTION SPECTROSCOPY AND DIFFERENTIAL PULSE POLAROGRAPHY. SAMPLES
                 WILL BE MEASURED BEFORE AND AFTER SPIKING WITH REAGENTS. PERIODIC MEASUREMENTS WILL ALSO BE
                 OBTAINED TO INDICATE THE DEGREE OF PRESERVATION.


*PROJECT: 006049-RESEARCH IN DEVICES FOR PARTICULATE CONTROL

                 TASK =F830M-791110 **EPA=R805897     ** (GRANT)
                 STARTING/ COMPLETION DATE : 05/78 - 06/81 :   FY79
 EPA  OFFICER.: JH TURNER                  EPA/IERL - RTP                       FTS 8-629-2476
 INVESTIGATOR.: MB RANADE                  RESEARCH TRIANGLE INST               RTP                      NC 27709
 PROGRAM ID...: (PE-830 )         FLUE GAS PARTICULATE CONTROL -ENERGY
 MANDATE......: 10-02     CLEAN AIR ACT
 ORDIS CODES..: RECN-006049         SSIE-GMA  6493        EPA -R805897          ORD -RF10B30-1079
                PE  -830
 PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL         ENTERED - 06-28-80    UPDATED-  06-28-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: IMPROVE MATHEMATICAL UNDERSTANDING OF ELECTROSTATIC PRECIPITATORS AND FABRIC FILTERS.
                 APPROACH: DEVELOP MATHEMATICAL MODELS FOR USE BY RESEARCHERS AND DESIGNERS OF PARTICULATE CONTROL
                 EQUIPMENT AS WELL AS BY CONTROL OFFICIALS.
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*PROJECT: 000865-INVESTIGATION OF FACTORS INVOLVED IN ADAPTION OF WOODY SPECIES TO ENVIRONMENTAL CONDITIONS ON COMPLETED REFUSE LANDFILLS
TASK =CC73 -000097 **EPA=R805907-01 ** (GRANT)
STARTING/ COMPLETION DATE : 05/78 - 09/80 : FY80

EPA OFFICER.:	RE LANDRETH	EPA/MERL - CINC	FTS-8-684-7871
INVESTIGATOR.:	FB FLOWER	RUTGERS UNIV	DEPT OF PLANT PATHOLOGY
	IA LEONE	RUTGERS UNIV	DEPT OF PLANT PATHOLOGY

MILESTONES...: 09/79 -INTERIM REPORT
09/80 -FINAL REPORT
PROGRAM ID...: (PE-C73) SOLID & HAZARDOUS WASTE
MANDATE......: 10-05 RESOURCE CONSERVATION AND RECOVERY ACT
ORDIS CODES..: RECN-000865 SSIE-GMA 5102 2 EPA -R805907-01 ORD -RC10B30-1080
PE -C73
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE OBJECTIVES OF THIS STUDY ARE: (A) TO MONITOR THE FIELD EXPERIMENTS ALREADY IN PROGRESS IN NEW JERSEY INVOLVING SCREENING OF WOODY SPECIES FOR ADAPTABILITY TO LANDFILL CONDITIONS AND ASSESSMENT OF PLANTING TECHNIQUES FOR EXCLUSION OF LANDFILL GASES FROM ROOT ZONES. FOR THE LONG-TERM PATTERN. (B) TO REPLACE TREES FOUND UNSUITABLE FOR LANDFILL CONDITIONS WITH OTHER POTENTIALLY ADAPTABLE SPECIES TO OBTAIN ADDITIONAL TOLERANCE INFORMATION. (C) TO EVALUATE THE INFLUENCE OF SECONDARY FACTORS SUCH AS SIZE OF TREES AT PLANTING, THE USE OF BARE-ROOTED VS. CONTAINERIZED TREES, AND THE EFFECT OF WATER STRESS ON THE ADAPTABILITY OF SPECIES TO LANDFILL CONDITIONS. (D) TO ASSESS THE VALUE OF MYCORRHIZAL FUNGI IN INDUCING TOLERANCE OF TREES TO LANDFILL CONDITIONS. STUDIES ALREADY IN PROGRESS TO SCREEN WOODY SPECIES FOR ADAPTABILITY TO LANDFILL CONDITIONS HAVE IDENTIFIED THE RELATIVE TOLERANCE OF 19 TREE SPECIES COMMONLY GROWN IN THE NORTHEAST, AND INVESTIGATIONS TO EVALUATE SUITABLE TECHNIQUES FOR EXCLUDING LANDFILL GASES FROM ROOT ZONES HAVE INDICATED THAT ABOVE-GROUND MOUNDS ARE SUPERIOR TO BACK-FILLED TRENCHES AS PLANTING SITES. THE PROPOSED PROJECT WILL INCLUDE FIELD AND GREENHOUSE INVESTIGATIONS. THE FIELD EXPERIMENTS ALREADY IN PROGRESS, WILL BE ENLARGED TO INCLUDE MEASUREMENT OF THE SECONDARY FACTORS (SIZE OF TREES, TYPE OF PRECONDITIONING, WATER STRESS, ETC.) WHICH INFLUENCE THE ADAPTABILITY OF TREES TO LANDFILL CONDITIONS. GREENHOUSE STUDIES WILL INVOLVE EXPERIMENTS TO EVALUATE VARIOUS METHODS OF "TAILORING" TREE SEEDS OR SEEDLINGS WITH MYCORRHIZAL FUNGI FOR VIABILITY UNDER LANDFILL GROWTH CONDITIONS.

*PROJECT: 001084-AEROSOLS GENERATED BY LIQUID SLUDGE APPLICATION TO LAND

TASK =DC27 -1E0006 **EPA=R805909-01 ** (GRANT)
STARTING/ COMPLETION DATE : 05/78 - 07/80 : FY80

EPA OFFICER.: NE KOWAL EPA/HERL - CINC FTS 8-684-7477
INVESTIGATOR.: DE JOHNSON SOUTHWEST RESEARCH INST SAN ANTONIO TX 78284
HJ HARDING SOUTHWEST RESEARCH INST SAN ANTONIO TX 78284
BP SAGIK UNIV OF TEXAS SAN ANTONIO TX 78284
CA SORBER UNIV OF TEXAS SAN ANTONIO TX 78284
MILESTONES...: 02/80 -DRAFT FINAL REPORT
PROGRAM ID...: (PE-C27) HEALTH EFFECTS - WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-05 RESOURCE CONSERVATION AND RECOVERY ACT
ORDIS CODES..: RECN-001084 SSIE-GMA 5147 2 EPA -R805909-01 ORD -RD10B30-1080
LABN-D611E-003 PE -C27
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVES: TO MONITOR ACTIVITIES OF SEVERAL SITES IN THE UNITED STATES PRACTICING SPRAY APPLICATION OF LIQUID MUNICIPAL SLUDGE TO LAND. TO INVESTIGATE THE COMPOSITION OF THE SLUDGE WITH RESPECT TO MICROBIOLOGICAL COMPONENTS, CHLORINATED PESTICIDES AND PCB'S, AND TRACE METALS. TO DETERMINE IF MICROBIOLOGICAL ORGANISMS ARE AEROSOLIZED AND CARRIED DOWNWIND OF THE SPRAY SITE TO DETERMINE POTENTIAL HEALTH EFFECTS. APPROACH: THE STUDY WILL BE INITIATED BY CONTACT WITH SITES AT WHICH SPRAY APPLICATION IS PRACTICED TO DETERMINE SIX CANDIDATE SITES. EACH OF THESE SITES WILL BE VISITED, LIAISON ESTABLISHED WITH THE APPROPRIATE STAFF, AND TWO LARGE VOLUME SAMPLES OF LIQUID SLUDGE OBTAINED, ONE AT THE TIME OF THE VISIT AND ONE APPROXIMATELY SIX WEEKS LATER. THESE LARGE-VOLUME SAMPLES WILL BE USED TO CHARACTERIZE THE SLUDGE FOR LEVELS AND TYPES OF PATHOGENIC ORGANISMS, LEVELS OF CHLORINATED PESTICIDES AND PCB'S, AND SEVEN TRACE METALS. SITE CHARACTERISTICS AND THE RESULTS OF THE MICROBIOLOGICAL SCREEN WILL BE USED TO SELECT THREE SITES FOR AEROSOL MONITORING. THE MONITORING EFFORT WILL BE ACCOMPLISHED OVER A THREE-WEEK PERIOD AT EACH SELECTED SITE. SEVEN AEROSOL RUNS WILL BE MADE AT EACH SITE, WITH FIVE DOWNWIND AND ONE UPWIND SAMPLE ON EACH RUN. A COMPOSITE SAMPLE OF THE SLUDGE WILL BE TAKEN AT THE SAME TIME FOR COMPARISON PURPOSES. AEROSOL SAMPLES WILL BE OBTAINED USING HIGH-VOLUME ELECTROSTATIC PRECIPITATOR-TYPE SAMPLERS (LITTON MODEL M OR LEAP). METEOROLOGICAL MEASUREMENTS WILL BE MADE USING TWO 2-METER WEATHER STATIONS. DATA OBTAINED IN THE STUDY WILL BE SUBMITTED TO STATISTICAL ANALYSIS TO DETERMINE THE NATURE AND/OR EXTENT OF ANY POTENTIAL HEALTH HAZARDS.

*PROJECT: 001768-LABORATORY INVESTIGATIONS OF DIFFUSION AND FUMIGATION INTO THE MIXED LAYER
TASK =G603A-AA-170 **EPA=R805912-02 ** (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 08/81 : FY79

EPA OFFICER.: RG LAMB EPA/ESRL - RTP FTS 8-629-4526
INVESTIGATOR.: JW DEARDORFF OREGON STATE UNIV LIBERAL ARTS/ANTHROP DEPT
MILESTONES...: 12/79 -SCIENTIFIC PAPER DESCRIBING DIFFUSION FROM ELEVATED SOURCE
06/80 -PRELIMINARY RESULTS OF PLUME FUMIGATION EXPERIMENTS
08/81 -FINAL RESULTS OF PLUME FUMIGATION EXPERIMENTS AND MODEL FORMULATION
PROGRAM ID...: (PE-603) TRANS. AND FATE -AIR
FINAL OUTPUT.: FINAL RESULTS OF PLUME FUMIGATION EXPERIMENTS AND MODEL FORMULATION.
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: EXPERIMENTS ON DIFFUSION FROM ELEVATED SOURCES HAVE BEEN COMPLETED AND RESULTS SUBMITTED FOR PUBLICATION. PRELIMINARY FUMIGATION RESULTS COLLECTED BUT NOT ANALYZED.
ORDIS CODES..: RECN-001768 SSIE-GMA 5214 1 EPA -R805912-02 ORD -RG10830-1079
LABN-G603A-AB-035 PE -603
PROJ STATUS..: PROJECT-COMPLETED INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO OBTAIN QUANTITATIVE DESCRIPTIONS OF THE MEAN CONCENTRATION PROFILES AND DIFFUSION RATES OF MATERIAL RELEASED FROM ELEVATED POINT SOURCES UNDER VERY UNSTABLE CONDITIONS; AND TO DERIVE SIMILAR INFORMATION FOR PLUMES FUMIGATING INTO THE CONVECTIVE MIXED LAYER FROM A STABLE LAYER ALOFT. APPROACH: USE OF A LARGE LABORATORY WATER TANK IN WHICH CONVECTION BELOW A STABLE INVERSION LAYER CAN BE SIMULATED.

*PROJECT: 001663-SULFUR BUDGET IN POWER PLANT PLUMES - PROCESSING, MANAGEMENT AND ANALYSIS OF PROJECT STATE DATA
TASK =G603A-AA-015 --EPA=R805918-01 *- (GRANT)
STARTING/ COMPLETION DATE : 08/75 - 06/81 : FY79

EPA OFFICER.: CF WALTERS EPA/ESRL - RTP 919-541-2648
INVESTIGATOR.: NV GILLANI WASHINGTON UNIV ST LOUIS MO 63130

MILESTONES....: 05/79 -DATA REPORT AND MEETING
06/79 -REPORT ON DATA MANAGEMENT AND ANALYSIS
11/79 -COLD WEATHER PLUME FIELD STUDY (CWPS)
04/80 -REPORT ON CWPS
06/81 -DATA VOLUMES AND REPORT ON FIELD STUDIES OF SULFUR TRANSFORMATION AND TRANSPORT

PROGRAM ID....: (PE-603) TRANS. AND FATE -AIR
MANDATE.......: 10-02 CLEAN AIR ACT

CURR. RESULTS: TOOK PART IN TENNESSEE PLUME STUDY, SUMMER 1978; PARTICIPATED IN MISSION CONTROL ACTIVITIES, PERFORMED ON-SITE REDUCTION, DATA VALIDATION AND DATA VOLUME PRODUCTION, DATA MANAGEMENT, DATA ANALYSIS AND PRODUCED DATA VOLUME, EPA/EPRI PLUME STUDY, 1977.

ORDIS CODES...: RECN-001663 SSIE-GMA 4560 3 EPA -R805918-01 ORD -RG10B30-1079
PE -603

PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: THIS PROJECT CONTINUES THE TASKS PERFORMED DURING THE FIRST YEAR OF THE GRANT, I.E. PROCESSING, MANAGEMENT AND ANALYSIS OF DATA COLLECTED AS PART OF THE AUGUST 1978 TENNESSEE PLUME STUDY (PHASE I OF PROJECT STATE). SIMILAR RESPONSIBILITIES WILL BE UNDERTAKEN FOR THE COLD WEATHER PLUME STUDY (PHASE II OF PROJECT STATE). APPROACH: SPECIFIC TASKS INCLUDE: (1) SOFTWARE ORGANIZATION AND DEVELOPMENT, (2) DATA BASE SYSTEM DESIGN AND IMPLEMENTATION, (3) DATA ANALYSES AND MODEL DEVELOPMENT, (4) PREPARATION FOR, AND PARTICIPATION IN, THE STATE COLD WEATHER PLUME STUDY FIELD PROGRAM, AND (5) PRODUCTION OF AN AIRCRAFT DATA VOLUME.

•PROJECT: 000872-AN ECONOMIC ASSESSMENT OF GOVERNMENTAL RISK MANAGEMENT POLICIES

TASK =CC73 -S4T017 ••EPA=R805920-01 •• (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 10/80 : FY80

EPA OFFICER..: OW ALBRECHT | EPA/MERL - CINC | FTS 8-684-7886
INVESTIGATOR.: RC ANDERSON | ENV LAW INST | WASHINGTON | DC 20036
MILESTONES...: 02/79 -DEVEL. OF ANALYTICAL FRAMEWORK AND ANALYSIS OF APPROACHES
10/80 -INTERIM REPORT
PROGRAM ID...: (PE-C73) SOLID & HAZARDOUS WASTE
MANDATE......: 10-05 RESOURCE CONSERVATION AND RECOVERY ACT
20-99 SHWRD
ORDIS CODES..: RECN-000872 | SSIE-GMA 5106 2 | EPA -R805920-01 | ORD -RC10B30-5080
LABN-C618A-107 | PE -C73
PROJ STATUS..: ACTIVE -MULTIYEAR | INFO-UPDATED | ENTERED - UNKNOWN | UPDATED- 06-28-80
CATEGORY-RESEARCH | ACCESS-PUBLIC
ABSTRACT.....: PRIMARY OBJECTIVES ARE: 1) TO EXAMINE THE APPLICABILITY OF COST BENEFIT ANALYSIS AND OTHER RELATED DECISION CRITERIA TO THE MANAGEMENT OF HAZARDOUS WASTE, AND 2) TO ANALYZE WITHIN A GENERALIZED COST-BENEFIT FRAMEWORK A NUMBER OF PAST DECISIONS IN GOVERNMENT PROGRAMS FOR THE MANAGEMENT OF HEALTH, ENVIRONMENTAL, AND SAFETY RISKS. THE APPROACH INCLUDES: 1) REVIEW OF THE THEORETICAL AND EMPIRICAL LITERATURE PERTAINING TO VALUING RISKS, 2) FORMALIZATION OF THE GENERALIZED COST-BENEFIT METHODOLOGY, 3) SAMPLE SELECTION OF GOVERNMENT PROGRAMS, 4) ANALYSIS OF THE SAMPLE, 5) SYNTHESIS OF THE RESULTS, 6) APPLICATION TO SELECTED HAZARDOUS WASTE DISPOSAL SITES.

•PROJECT: 003762-CRITICAL REVIEW AND EVALUATION OF RESEARCH ON THE IMPACT OF ENERGY-RELATED WASTES ON THE AQUATIC ENVIRONMENT

TASK =N831 -000003 ••EPA=R805921-01 •• (GRANT)
STARTING/ COMPLETION DATE : 06/78 - 05/80 : FY79

EPA OFFICER..: KE BIESINGER | EPA/ERL - DULUTH | FTS 8-783-9512
INVESTIGATOR.: WR CHAPPELL | UNIV OF COLORADO | DEPT. OF PHYSICS
R DAMRAUER | UNIV OF COLORADO | DEPT. OF PHYSICS
DD CHIRAS | UNIV OF COLORADO | DEPT. OF PHYSICS
MILESTONES...: 06/80 -FINAL REPORT
PROGRAM ID...: (PE-831) EFFECTS OF ENERGY REL POLLUTANTS
MANDATE......: 30-99 BIOLOGY/CHEMISTRY
CURR. RESULTS: QUARTERLY REPORTS RECEIVED AND LITERATURE SEARCHES UNDERWAY.
ORDIS CODES..: RECN-003762 | SSIE-GMA 4940 1 | EPA -R805921-01 | ORD -RN10B30-3079
LABN-N625A-083 | PE -831
PROJ STATUS..: ACTIVE -MULTIYEAR | INFO-UPDATED | ENTERED - UNKNOWN | UPDATED- OCT-DEC 79
CATEGORY-RESEARCH | ACCESS-PUBLIC
ABSTRACT.....: THE PURPOSE OF THE PROPOSED WORK IS TO CRITICALLY REVIEW COMPLETED AND ON-GOING RESEARCH RELATED TO THE IMPACT OF ENERGY-RELATED WASTES ON THE AQUATIC ENVIRONMENT. THE SPECIFIC OUTPUTS OF THE WORK WILL BE ANNUAL "STATE-OF-THE-ART" DOCUMENTS THAT WILL DESCRIBE THE PRESENT STATE OF THE RESEARCH AND CRITICAL AREAS WHERE RESEARCH IS NEEDED IN ORDER TO PROVIDE A DATA BASE FOR DECISION MAKERS.

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*PROJECT: 006052-NEAR STACK PLUME SAMPLING FOR CONDITIONING AGENT STUDIES

                  TASK =F830M-792170 **EPA=R805926      ** (GRANT)
                  STARTING/ COMPLETION DATE : 08/78 - 08/81 :    FY79
 EPA  OFFICER.: LE SPARKS                 EPA/IERL - RTP                      FTS 8-629-2925
 INVESTIGATOR.: JA ARMSTRONG              UNIV OF DENVER                      DENVER RES INST
 PROGRAM ID...: (PE-830 )            FLUE GAS PARTICULATE CONTROL -ENERGY
 MANDATE......: 10-02     CLEAN AIR ACT
 ORDIS CODES..: RECN-006052           SSIE-GMA  6482         EPA -R805926          ORD -RF10B30-1079
                PE  -830
 PROJ STATUS...: PROJECT-ACTIVE       INFO-ORIGINAL          ENTERED - 06-28-80    UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT......: OBJECTIVE: TO DEVELOP DATA ON THE ENVIRONMENTAL IMPACT OF FLUE GAS CONDITIONING AGENTS BY NEAR STACK
                 PLUME SAMPLING. APPROACH: DEVELOP ENVIRONMENTAL IMPACT DATA OF FLUE GAS CONDITIONING AGENTS FOR USE
                 BY OAQPS, DSSE, AND STATE ENFORCEMENT AGENCIES.

*PROJECT: 006051-OPERATING CHARACTERISTICS OF ELECTROSTATIC PRECIPITATORS AT ELEVATED
                 TEMPERATURE AND HIGH PRESSURE
                  TASK =F830M-791990 **EPA=R805939      ** (GRANT)
                  STARTING/ COMPLETION DATE : 06/78 - 06/81 :    FY79
 EPA  OFFICER.: DC DREHMEL                EPA/IERL - RTP                      919-541-2925
 INVESTIGATOR.: GA RINARD                 UNIV OF DENVER                      DENVER RES INST
 PROGRAM ID...: (PE-830 )            FLUE GAS PARTICULATE CONTROL -ENERGY
 MANDATE......: 10-02     CLEAN AIR ACT
 CURR. RESULTS: THE LAY OUT OF THE LABORATORY FOR ESP INSTALLATION
                WAS FINALIZED AND A CELL FOR MEASURING ASH
                RESISTIVITY AT 1800F WAS CONSTRUCTED.
 ORDIS CODES..: RECN-006051           SSIE-GMA  6491         EPA -R805939          ORD -RF10B30-1079
                PE  -830
 PROJ STATUS...: PROJECT-ACTIVE       INFO-ORIGINAL          ENTERED - 06-28-80    UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT......: OBJECTIVE: TO DETERMINE PROBLEMS ASOCIATED WITH USE OF ELECTROSTATIC PRECIPITATORS AT HIGH
                 TEMPERATURE AND PRESSURE AND TO EXAMINE SUITABLE MATERIALS, DESIGN CHARACTERISTICS AND OPERATION
                 AND MAINTENANCE PROBLEMS. APPROACH: DEVELOP INFORMATION ON THE USE OF ELECTROSTATIC PRECIPITATORS
                 ON ADVANCED ENERGY SYSTEMS TO MEET REVISED NSPS.
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*PROJECT: 004411-RURAL WASTEWATER DISPOSAL ALTERNATIVES

                TASK =CC35 -06T030 **EPA=R805942      ** (GRANT)
                STARTING/ COMPLETION DATE : 09/78 - 08/80 :   FY80
 EPA  OFFICER.: SW HATHAWAY              EPA/MERL - CINC                FTS-8-684-7615
 INVESTIGATOR.: AI INGHAM                STATE WATER RES CONT BOARD     SACRAMENTO          CA 95801
 MILESTONES...: 06/80 -DRAFT FINAL REPORT
                08/80 -FINAL REPORT ASSESSING PERFORMANCE, COST, & PUBLIC HEALTH RISK ASSESSMENT
 PROGRAM ID...: (PE-C35 )          WASTEWATER SYSTEMS CONTROL TECHNOLOGY
 FINAL OUTPUT.: FINAL REPORT ASSESSING PERFORMANCE, COST & PUBLIC HEALTH
 MANDATE......: 30-99     MICROBIOLOGY & EPIDEMIOLOGY
 CURR. RESULTS: WORK PLAN DEVELOPED AND IMPLEMENTATION UNDERWAY.
 ORDIS CODES..: RECN-004411        SSIE-GMA  5582 1      EPA -R805942         ORD -RC10B30-3080
                LABN-C822B-06T30   PE  -C35
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS STUDY IS TO EVALUATE THE PUBLIC HEALTH ACCEPTABILITY, PERFORMANCE
                 RELIABILITY, AND COST-EFFECTIVENESS OF ALTERNATIVE ON-SITE WASTEWATER MANAGEMENT SYSTEMS,
                 PARTICULARLY COMPOSTING TOILETS AND GRAYWATER SYSTEMS. APPROACH: TO BE STUDIED ARE STORAGE AND
                 REUSE OF GRAYWATER AND NUMEROUS TYPES OF WATERLESS TOILETS, INDIVIDUAL COMPOSTERS. A HEALTH
                 EVALUATION COMMITTEE CONSISTING OF EXPERTS FROM THE HEALTH, ENVIRONMENTAL, AND ENGINEERING SCIENCES
                 WILL DEFINE THE DATA NEEDED TO ASSESS THE HEALTH PROBLEMS ASSOCIATED WITH ALTERNATIVE ON-SITE
                 SYSTEMS. SELECTED SYSTEMS WILL BE MONITORED IN THE FIELD TO DETERMINE OPTIMAL DESIGN, CONSTRUCTION,
                 AND SITING CRITERIA & OPERATION & MAINTENANCE PROCEDURES. LABORATORY ANALYSES WILL BE CONDUCTED TO
                 IDENTIFY THE PHYSICAL, CHEMICAL & BIOLOGICAL CHARACTERISTICS OF THE ACCUMULATED SOLIDS & LIQUIDS
                 (E.G. COMPOSTED RESIDUES & GRAYWATER).


*PROJECT: 004812-EVALUATION OF GAS FILTER CORRELATION TECHNIQUES FOR THE SINGLE-ENDED
                MEASURE OF SO2
                TASK =G712B-BA-037 **EPA=R805956-02  ** (GRANT)
                STARTING/ COMPLETION DATE : 08/78 - 08/80 :   FY79
 EPA  OFFICER.: WF HERGET                EPA/ESRL - RTP                 FTS 8-629-3034
 INVESTIGATOR.: LW CHANEY                UNIV OF MICHIGAN               HIGH ALTITUDE ENGINEERING
 MILESTONES...: 06/80 -COMPLETE FIELD TEST OF HF INSTRUMENT
                06/80 -COMPLETE LABORATORY TEST OF NO-NO2 INSTRUMENT
                12/80 -COMPLETE FINAL REPORT
 PROGRAM ID...: (PE-712 )          CHARAC. & MEASUREMENT METHODS DEVEL - AIR
 FINAL OUTPUT.: INSTRUMENTS SUITABLE FOR ENFORCEMENT AND
                SURVEILLANCE ACTIVITIES.
 MANDATE......: 10-02     CLEAN AIR ACT
 ORDIS CODES..: RECN-004812          SSIE-GMA  5794        EPA -R805956-02      ORD -RG10B30-1079
                ORD -RG10B30-1079    PE  -712
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: EVALUATE THE LONGPATH GAS-FILTER CORRELATION INSTRUMENT FOR MEASUREMENT OF HF
                 CONCENTRATIONS EMITTED FROM ALUMINUM REFINERY POTROOMS. TEST AND CALIBRATE AN NO-NO2 GAS-FILTER
                 CORRELATION INSTRUMENT IN THE LABORATORY.
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*PROJECT: 006008-NEW INERTIAL PARTICLE-SIZE CLASSIFICATION TECHNIQUES FOR SOURCE EVALUATIONS
TASK =F827J-792620 **EPA=R805971 ** (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 09/81 : FY79

EPA OFFICER.: DB HARRIS EPA/IERL - RTP FTS 8-629-2557
INVESTIGATOR.: K WILLEKE UNIV OF CINCINNATI SCH OF ENG/ELEC ENG TECH
PROGRAM ID...: (PE-827) ENV IMPACT OF CONV & ADV ENERGY SYSTEMS
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: THE PARTICLE-SIZE CLASSIFIER WAS CHALLENGED WITH MONODISPERSED AEROSOLS GENERATED BY A VIBRATING-ORIFICE AEROSOL GENERATOR. THE SIZE CLASSIFICATION CURVE WAS RATHER DEGRADED BECAUSE (1) SEVERAL COMPONENTS ARE BOLTED TOGETHER TO PROVIDE THE WIDEST CHOICE DIAGNOSTIC TESTING AND (2) THE FLOW BALANCE IN THE SYSTEM WAS INSUFFICIENTLY ACCURATE DURING THE INITIAL TESTS.
ORDIS CODES..: RECN-006008 SSIE-GMA 6501 EPA -R805971 ORD -RF1031-1079
PE -827
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: DEVELOP A NEW METHOD OF INERTIAL PARTICLE SIZE CLASSIFICATION WHICH WILL BE USED TO EVALUATE THE EFFLUENTS FROM INDUSTRIAL SOURCES RELATIVE TO THEIR PARTICLE SIZE DISTRIBUTION.
APPROACH: PROVIDE IMPROVEMENT IN THE ART OF MONITORING STATIONARY SOURCE EMISSIONS AND IN THE MEASUREMENT OF FINE PARTICLES FROM INDUSTRIAL SOURCES.

*PROJECT: 003344-FACILITATION OF GENERAL UNDERSTANDING AND APPLICATION OF GROUNDWATER
MODELS
TASK =L824C-000014 **EPA=R805978 ** (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 06/81 : FY79

EPA OFFICER.: JW KEELEY EPA/ERL - ADA FTS 8-743-2210
INVESTIGATOR.: CL KILLPACK BUTLER UNIV HOLCOMB RES INST
MILESTONES...: 07/79 -FIRST INTERIM REPORT
07/80 -SECOND INTERIM REPORT
07/81 -THIRD INTERIM REPORT
PROGRAM ID...: (PE-824) DRINK WATER TREAT & GROUND WATER PROT -DRINKING WATER
MANDATE......: 10-15 SAFE DRINKING WATER ACT
ORDIS CODES..: RECN-003344 SSIE-GMA 5024 1 EPA -R805978 ORD -RL10B30-1079
LABN-L614C-014 PE 824
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THE PROPOSED PROJECT IS TO DEVELOP INSTITUTIONAL AND TECHNICAL MECHANISMS WHICH FACILITATE THE UNDERSTANDING AND APPLICATION OF GROUNDWATER MODELS AND THEIR ACCESSIBILITY TO POTENTIAL USERS. APPROACH: THE PROJECT WILL CREATE A CENTRAL "CLEARINGHOUSE" PROVIDING CONVENIENT ACCESS AND IMPROVED GUIDANCE TO ALL CONCERNED WITH DEVELOPMENT AND PROTECTION OF OUR GROUNDWATER RESOURCE. THE PROJECT LOGICALLY ADDRESSES PROBLEM AREAS IDENTIFIED IN A PREVIOUS REPORT, "UTILIZATION OF NUMERICAL GROUNDWATER MODELS FOR WATER RESOURCE MANAGEMENT". IN THIS REPORT, THE FOUR PROBLEM AREAS WERE: (A) ACCESSIBILITY OF MODELS TO POTENTIAL USERS, (B) COMMUNICATIONS BETWEEN MANAGERS AND TECHNICAL PERSONNEL, (C) INADEQUACIES IN THE DATA, AND (D) INADEQUACIES IN MODELING. THESE PROBLEMS ARE REAL IN THAT A MYRIAD OF GROUND-WATER MODELS HAVE BEEN GENERATED WORLDWIDE. THESE MODELS EXIST AT A STAGGERING EXPENSE IN TERMS OF MAN-HOURS AND DOLLARS AND ARE PRESENTLY INACCESSIBLE TO MOST POTENTIAL USERS.

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*PROJECT: 004742-TYPE A VIRAL HEPATITIS - EFFECT OF CHLORINE ON ANTIGENICITY AND
               INFECTIVITY
                 TASK =CC61 -S2T040 **EPA=R805986     ** (GRANT)
                 STARTING/ COMPLETION DATE : 08/78 - 10/80 :   FY80
 EPA  OFFICER.: JC HOFF               EPA/MERL - CINC            513-684-7331
 INVESTIGATOR.: DA PETERSON           RUSH UNIV                  RUSH PRESBYTERIAN ST. LUKE
                LG WOLFE              RUSH UNIV                  RUSH PRESBYTERIAN ST. LUKE
 MILESTONES...: 08/79 -INTERIM REPORT
                07/80 -PROJECT COMPLETED
                10/80 -EPA FINAL REPORT PUBLISHED
 PROGRAM ID...: (PE-C61 )          DRINK WATER TREATMENT & GROUND WATER PROT
 FINAL OUTPUT.: EPA REPORT PUBLISHED
 MANDATE......: 20-13     DAA FOR DRINKING WATER
 CURR. RESULTS: POOL OF INFECTIOUS MATERIAL AND PURIFIED VIRUS
                PREPARED. ONE DISINFECTIN EXPERIMENT HAS BEEN COMPLETED
                AND A SECOND EXPERIMENT IS IN PROGRESS
 ORDIS CODES..: RECN-004742          SSIE-GMA  5887 1      EPA -R805986        ORD -RC10B30-2080
                PE  -C61
 PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH     ACCESS-PUBLIC
 COMMENT......: APPROACH MAY BE MODIFED AS RESULT OF RECENT
                PUBLICATION INDICATING SUCCESSFUL PROPAGATION
                OF HEPATITIS A VIRUS.
```


ABSTRACT.....: OBJECTIVE: DETERMINE THE EFFECTS OF CHLORINE OF TYPE A VIRAL HEPATITIS VIRUS INFECTIVITY. APPROACH: 1. DETERMINE THE EFFECTS OF CHLORINE ON VIRUS MORPHOLOGY AND ANTIGENICITY AS INDICATORS OF DISINFECTANT EFFECTS. 2. USING THE DATA COLLECTED, A LIMITED NUMBER OF INFECTIVITY STUDIES USING MARMOSETS WILL BE CONDUCTED.

124.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE R805990-02

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

ATMOSPHERIC MEASUREMENTS OF TOXIC ORGANIC CHEMICALS

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

H.B. Singh, Senior Research Engineer, Atmospheric Science Center
W.B. Johnson, Director, Atmospheric Science Center

NAME AND ADDRESS OF APPLICANT INSTITUTION

SRI International
333 Ravenswood Avenue
Menlo Park, California 94025

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

A vast number of potentially harmful organic chemicals are released into the environment. It is becoming increasingly apparent that these chemicals contribute to the growing rate of cancer in industrialized countries. The atmospheric abundance and fates of these pollutants is poorly understood. This proposal presents a research study approach to develop methodologies for the measurement of a large number of toxic chemicals. Field experiments will be conducted at several urban locations and near several specific source locations to characterize quantitatively the atmospheric burden of toxic chemicals. The field measurements will be conducted with the help of an instrumented mobile environmental laboratory. These in-situ analyses will be complemented by a simultaneous program of specialized exploratory measurements. Gas chromatographic, gas chromatographic/mass spectrometric, and coulometric techniques will be developed and used for the analysis of atmospheric pollutants. Data on the sources, sinks, emissions, and effects of toxic pollutants will be collected and analyzed.

*PROJECT: 004735-A DATA ANALYSIS AND MANAGEMENT SYSTEM FOR PUBLIC WATER SUPPLIES

TASK =CC61 -S1T065 **EPA=R805994-01 ** (GRANT)
STARTING/ COMPLETION DATE : 05/78 - 05/80 : FY80

EPA OFFICER.: RN CLARK   EPA/MERL - CINC   FTS-8-684-7209
INVESTIGATOR.: RA DEININGER   UNIV OF MICHIGAN   SCH OF PUBLIC HEALTH
MILESTONES...: 08/78 -GRANT AWARDED
08/79 -INTERIM REPORT PUBLISHED
10/79 -CONTINUATION FUNDING PACKAGE PROCESSED
01/81 -PROJECT COMPLETED
05/81 -FINAL REPORT PUBLISHED
PROGRAM ID...: (PE-C61)   DRINK WATER TREATMENT & GROUND WATER PROT
MANDATE......: 10-15   SAFE DRINKING WATER ACT
CURR. RESULTS: LIMITED BUT SUCCESSFUL DEMONSTRATIONS OF INTERCTIVE
DATA MANAGEMENT TECHNIQUES ACCOMPLISHED.
ORDIS CODES..: RECN-004735   SSIE-GMA 5990 1   EPA -R805994-01   ORD -RC10B31-1080
PE -C61
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: DEVELOP A DATA ANALYSIS AND MANAGEMENT SYSTEM FOR USE AS A RESEARCH TOOL TO MANAGE WATER SUPPLY RESEARCH DATA. APPROACH: NEW AND EXISTING DATA MANAGEMENT TECHNIQUES ARE BEING DEVELOPED AND DEMONSTRATED FOR USE IN WATER SUPPLY RESEARCH.

```
*PROJECT: 006134-PYRETHROID CHEMISTRY AND TOXICOLOGY

                TASK =H615 -949700 **EPA=R805999      ** (GRANT)
                STARTING/ COMPLETION DATE : 07/78 - 06/81 :   FY79
  EPA  OFFICER.: RL BARON                 EPA/HERL - RTP                   FTS 8-629-2655
  INVESTIGATOR.:    UNKNOWN               UNIV OF CALIFORNIA               GRADUATE SCHOOL
  MILESTONES...: 09/79 -DECAMETHRIN METABOLISM IN PLANTS/ANIMALS
                 06/81 -STUDIES ON OXIME-ETHER PYRETHROIDS
                 06/80 -PHOTODECOMPOSITION OF BIOALLETHRIN/ALLETHRIN
                 06/80 -STUDIES ON PROPYRETHROIDS-METABOLISM
                 06/80 -MUTAGENECITY PROPERTIES OF PYRETHROIDS
                 06/81 -NEUROTOXICITY PROPERTIES OF DECAMETHRIN
                 06/81 -NEURORECEPTORS OF PYRETHROIDS
                 06/80 -PYRETHROID HYDROLYZING ESTERASES
                 06/80 -METABOLISM OF KADETHRIN IN RATS
  PROGRAM ID...: (PE-615 )          HEALTH EFFECTS - PESTICIDES
  MANDATE......: 20-30     AA FOR TOXIC SUBSTANCES
  ORDIS CODES..: RECN-006134          SSIE-HZ 799497        EPA -R805999         ORD -RH10B30-2079
                 LABN-H615 -949700    PE  -615
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 06-28-80   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: TO EXAMINE THE TOXICOLOGICAL PROPERTIES OF PYRETHROID INSECTICIDES A NEW ANALYTICAL PROCEDURE
                  SENSITIVE TO CYANO-CONTAINING PYRETHROIDS IS BEING DEVELOPED WHICH WILL ALLOW GLC ANALYSIS TO BE
                  MORE SENSITIVE THAN CURRENTLY ACHIEVED. A FULL REPORT OF THIS PROCEDURE WILL BE AVAILABLE NEXT
                  QUARTER WHEN IT IS VERIFIED. THE A-CYANO-3-PHENOXYBENZYL PYRETHROIDS REACT READILY WITH ACETONE TO
                  FORM DIMETHYLOXIRANE DERIVATIVES AND WITH PENTAFLUOROBENZYL BROMIDE FLUOROBENZYL DERIVATIVES OF THE
                  PYRETHROIDS FENVALERATE, FENPROPANATE, CYPERMETHRIN AND DECAMETHRIN PROVIDE HIGH ELECTRON CAPTURE
                  SENSILIC FATE OF KADETHRIN. KADETHRIN IS ALMOST COMPLETELY METABOLIZED PRIMARILY BY ESTER CLEAVAGE
                  AND THE METABOLITES EXCRETED WITHIN A FEW EXCRETED ESTERS. KADETHRIN, ITS A-HYDROXY AND 4'-HYDROXY
                  DERIVATIVES, AND THE THIOL-CARBOXYLIC ACID FROM OPENING THE THIOLACTONE RING ACCOUNT THE LIBERATED
                  CYCLOPROPANECARBOXYLIC ACID IS EXCRETED FREE AND AS CONJUGATES WITH GLUCURONIC ACID AND GLYCINE.
                  THE DIFFERENCES IN HALOGENATED PURETHROID PHOTOSTABILITY AS EXAMINED IN METHANOL SUGGEST THE NEED
                  FOR A GENERALIZED SCALE OF REACTIVITY AS WELL AS A STUDY OF SUBSTITUENT EFFECTS. THESE STUDIES WILL
                  BE INITIATED UTILIZING THE DIHALOGENATED ANALOGS OF CYPERMETHRIN AND DECAMETHRIN. THE POSSIBLE
                  TOXICITY AND/OR MUTAGENICITY OF THE PHOTOPRODUCTS OBTAINED IS NOW BEING STUDIED.
```

*PROJECT: 006363-PYRETHROID CHEMISTRY AND TOXICOLOGY

TASK =HC86 -949700 **EPA=R805999 ** (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 06/81 : FY80
EPA OFFICER.: RL BARON EPA/HERL - RTP FTS 8-629-2655
INVESTIGATOR.: CASIDA UNIV OF CALIFORNIA GRADUATE SCHOOL
MILESTONES...: 09/79 -DECAMETHRIN METABOLISM IN PLANTS/ANIMALS
06/81 -STUDIES ON OXIME-ETHER PYRETHROIDS
06/80 -PHOTODECOMPOSITION OF BIOALLETHRIN/ALLETHRIN
06/80 -STUDIES ON PROPYRETHROIDS-METABOLISM
06/80 -MUTAGENECITY PROPERTIES OF PYRETHROIDS
06/81 -NEUROTOXICITY PROPERTIES OF DECAMETHRIN
06/81 -NEURORECEPTORS OF PYRETHROIDS
06/80 -PYRETHROID HYDROLYZING ESTERASES
06/80 -METABOLISM OF KADETHRIN IN RATS
PROGRAM ID...: (PE-C86) HEALTH EFFECTS - PESTICIDES
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
ORDIS CODES..: RECN-006363 SSIE-HZ 809497 EPA -R805999 ORD -RH10B30-1080
PE -C86
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: TO EXAMINE THE TOXICOLOGICAL PROPERTIES OF PYRETHROID INSECTICIDES NEW ANALYTICAL METHOD VERIFICATION IS CONTINUING. FULL REPORT OF PROGRESS WILL BE AVAILABLE NEXT QUARTER WHEN ANNUAL RENEWAL IS TO BE SUBMITTED.

*PROJECT: 004486-FATE, TRANSPORT AND TRANSFORMATION OF TOXICS - SIGNIFICANCE OF SUSPENDED SEDIMENT AND FLUID MUD
TASK =Q771 -000124 **EPA=R806002 ** (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 08/80 : FY79
EPA OFFICER.: O BRICKER EPA/ERL -GULF BREEZE FTS 8-922-3912
INVESTIGATOR.: MM NICHOLS PHYS SCI & OCEAN ENG GLOUCESTER POINT VA 23062
MILESTONES...: 12/78 -WORK PLAN COMPLETED AND APPROVED BY PROJECT OFFICER
09/79 -COMPLETED FIELD RESULTS ON SUSPENDED SEDIMENT AND FLUID MUD
06/80 -LABORATORY ANALYSIS COMPLETED FOR ALL PARAMETERS
09/80 -ANALYSIS COMPLETED ON S.S. AND FLUID MUD DATA
08/80 -REPORT
PROGRAM ID...: (PE-771) INTEGRATED PESTICIDE MANAGEMENT
MANDATE......: 20-60 AA FOR RESEARCH AND DEVELOPMENT
ORDIS CODES..: RECN-004486 SSIE-GMA 5639 EPA -R806002 ORD -RQ10B30-2079
PE -771
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO PROVIDE NEW DATA CONCERNING THE EXTENT OF CONTAMINATION AND FATE OF SELECTED HEAVY METALS AND HALOGENATED HYDROCARBONS IN SUSPENDED SEDIMENT AND FLUID MUD OF THE CHESAPEAKE BAY. IN ADDITION, THE IMPACT OF RIVER FLOODS AND S[illegible]ING TIDES IN DETERMINING THE DISTRIBUTION OF SUSPENDED SEDIMENT WILL BE EVALUATED.

127.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

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Form Approved OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R806004-02-0

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

A Study of Isoenzymes In Callus Tissues from Ozone Resistant and Ozone Sensitive Plants

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

DR. JOHN P. RIER, JR., PROJECT DIRECTOR
DEPARTMENT OF BOTANY
HOWARD UNIVERSITY
WASHINGTON, D. C. 20059

NAME AND ADDRESS OF APPLICANT INSTITUTION

HOWARD UNIVERSITY
2400 SIXTH STREET, N. W / WASHINGTON, D. C. 20059

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The aim of this project is to examine the peroxidase isozyme patterns of extracts from callus tissues of one ozone tolerant and one ozone sensitive variety of soybeans and alfalfa.

Callus tissues and non-callus tissues from stems, leaves and roots of each variety will be exposed to predetermined dosages of ozone. Peroxidase isozyme patterns in the extracts of treated and untreated tissues will be visualized in a Gel electrophoresis system for study and comparative analysis.

Peroxidase isozyme patterns have been established for extracts of untreated callus and non-callus tissues of both stems and leaves from the four varieties of plants employed in this study.

•PROJECT: 001980-TECHNIQUES FOR THE MEASUREMENT OF AEROSOL CARBON CONTENT

TASK =GC07 -000423 **EPA=R806005 ** (GRANT)
STARTING/ COMPLETION DATE : 10/76 - 11/81 : FY80

EPA OFFICER.: C LEWIS EPA/ESRL - RTP 919-541-3154
INVESTIGATOR.: ES MACIAS WASHINGTON UNIV CHEM DEPT
MILESTONES...: 05/80 -DEVELOPMENT OF A COMPREHENSIVE SET OF TECHNIQUES TO QUANTITATIVEL
06/80 -COMPLETION OF PROJECT PERIOD
11/81 -FINAL REPORT ON THE DEVELOPMENT OF METHODS TO QUANTITATIVELY
PROGRAM ID...: (PE-C07) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: THE GRALE TECH. HAS BEEN SUCCESSFULLY USED FOR THE ANALYSIS OF TISSUQUARTZ FILTERS AND HAS SHOWN PROMISE IN TESTS USING THIN TEFLON FILTERS. A REFLECTANCE METHOD F DETERMINING ELEMENTAL CARBON (SOOT) IN ATMOSPHERIC FINE-PARTICULATE MATTER HAS BEEN DEV. LIMITED TESTING OF METHODS ON FINE URBAN AERSOL COLLECTED IN ST. LOUIS
ORDIS CODES..: RECN-001980 SSIE-GMA 2717 4 EPA -R806005 ORD -RG10B30-1080
PE -C07
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE MAJOR OBJECTIVE OF THIS RESEARCH IS THE DEVELOPMENT OF INSTRUMENTS AND TECHNIQUES TO DETERMINE THE CHEMICAL COMPOSITION OF CARBONACEOUS PARTICULATE MATTER WITH HIGHER ACCURACY AND IN MORE DETAIL THAT IS PRESENTLY POSSIBLE. IT IS ANTICIPATED THAT ULTIMATELY THESE TECHNIQUES WILL BE USED IN CONJUNCTION WITH XRF ANALYSIS OF TEFLON FILTERS TO PROVIDE INFORMATION ON MARS BALANCE. APPROACH: THE TOTAL CARBON CONTENT IS DETERMINED BY THE GRALE TECHNIQUE USING PROTON INDUCED GAMMA RAY EMISSION. THE VOLATILE/NON-VOLATILE/CARBONATE CARBON FRACTIONS ARE DETERMINED BY DIFFERENTIAL HEATING FOLLOWED BY GRALE CARBON ANALYSIS OF THE REMAINING CARBON AFTER EACH HEATING STEP. THE SOOT CARBON FRACTION IS DETERMINED BY REFLECTANCE ANALYSIS. THE BULK ORGANIC FRACTION IS DETERMINED FROM THE DIFFERENTIAL THERMAL ANALYSIS RESULTS. EMPHASIS HAS BEEN PLACED ON MAKING THIS SET OF MEASUREMENTS COMPATIBLE WITH DICHOTOMOUS SAMPLERS AND TEFLON FILTERS.

•PROJECT: 006040-ATMOSPHERIC EMISSIONS FROM ASPHALT PRODUCTS

TASK =F830M-790310 **EPA=R806009 ** (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 01/80 : FY79

EPA OFFICER.: GW TUCKER EPA/IERL - RTP 919-541-2745
INVESTIGATOR.: GL SIMARD UNIV OF MAINE DEPT. OF CHEM ENGIN
PROGRAM ID...: (PE-830) FLUE GAS PARTICULATE CONTROL -ENERGY
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-006040 SSIE-GMA 6497 EPA -R806009 ORD -RF10B31-1079
PE -830
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS GRANT IS TO DO LABORATORY SIMULATION STUDIES TO DETERMINE THE PROBLEM POTENTIAL FOR EMISSIONS OF HAZARDOUS ORGANIC MATERIALS TO AMBIENT AIR FROM ROADS, ROOFS, AND OTHER MAN-MADE SURFACES CONSTRUCTED FROM ASPHALTIC MATERIALS. APPROACH: IDENTIFY CHARACTERISTIC EMISSIONS FROM SIMULATED ENVIRONMENTAL EXPOSURE OF TYPICAL ASPHALTIC MATERIALS AND PROVIDE AN ANALYTICAL METHODOLOGY APPLICABLE TO EXTENDING SUCH STUDIES TO REAL CONDITIONS.

128.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

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NOTICE OF RESEARCH PROJECT

PROJECT NO. (Do not use this space)
SSIE
EPA. R806020-02

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Dispersal of Coal Dust from Transshipment and Power Plant Storage Facilities

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Michael Sydor, Professor, Physics Department

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Minnesota, Duluth
Duluth, Minnesota 55812

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Rapid methods for sampling and identification of particulates will be used to study the dispersal of wind-borne particulates from power plants and validation of numerical models for dust dispersal. A numerical model based on statistical solution to the gradient transfer problem has been developed for this project. The model will be validated at a test site in Minnesota.

Rapid detection of dustfall has been made possible by optically scanning for spherical fly ash on particle by particle basis. The method has been developed here for examination of particle shapes in suspended solids.

Samples will be collected at the Cohasset Power Plant for various wind episodes and scanned optically to determine dustfall rates as a function of winds for model calibration purposes. Subsequently, the model will be used to determine yearly deposition rate and distribution of fly ash fallout around the plant. Prediction of the long term accumulations will be checked by examination of dustfall accumulated in snow. Snow surface reflectivity monitored at ground and from satellite offers a possible check on the determination of the distribution of dustfall.

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*PROJECT: 005131-EFFICACY OF WATER TREATMENT METHODS ON GIARDIA CYST VIABILITY

                  TASK =CC61 -S2T036 **EPA=R806032      ** (GRANT)
                  STARTING/ COMPLETION DATE : 08/78 - 10/80 :   FY80
  EPA  OFFICER.: JC HOFF                 EPA/MERL - CINC                   513-684-7331
  INVESTIGATOR : EA MEYER                OREGON STATE UNIV                 HLTH SCI CNTR
                 EL JARROLL              OREGON STATE UNIV                 HLTH SCI CNTR
  MILESTONES...: 08/79 -INTERIM REPORT PUBLISHED
                 07/80 -PROJECT COMPLETED
  PROGRAM ID...: (PE-C61 )          DRINK WATER TREATMENT & GROUND WATER PROT
  CURR. RESULTS: DISINFECTION METHODS FOR CYST ENACTIVATION COMPLETED PAPER
                 PUBLISHED-AM.J TRVP MED. HYG. 291 1980. PP 8-11
  ORDIS CODES..: RECN-005131       SSIE-GMA  6235 1      EPA -R806032        ORD -RC10B30-4080
                 PE  -C61
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  COMMENT......: BECAUSE OF LACK OF AAILABILITY OF GIARDIA CYSTS ALL OBJECT
                 OF PROJECT OF PROJECT WILL NOT BE ATTAINED
  ABSTRACT.....: OBJECTIVE: DETERMINE THE EFFICACY OF CHLORINE SPECIES, CHLORINE DIOXIDE, AND OZONE FOR INACTIVATION
                  OF GIARDIA LAMBLIA CYSTS IN WATER. APPROACH: USING RECENTLY DEVELOPED IN VITRO EXCYSTATION
                  PROCEDURE, THE VIABILITY OF G. LAMBLIA CYSTS WILL BE DETERMINED AFTER EXPOSURE TO DRINKING WATER
                  DISINFECTION UNDER VARIOUS CONDITIONS OF TEMPERATURE, PH, DISINFECTANT CONCENTRATION, ETC.
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*PROJECT: 005264-DESIGN AND MANAGEMENT OF A MULTIPEST AGROECOSYSTEM

TASK =W771 -000014 **EPA=R806034-02 ** (GRANT)
STARTING/ COMPLETION DATE : 00/79 - UNK : FY79

EPA OFFICER.: KJ HOOD EPA/OEPER- DAA 202-426-2317
INVESTIGATOR.: DL HAYNES MICHIGAN STATE UNIV AGRIC & NAT RES
MILESTONES...: 00/00 -THREE QUARTERLY REPORTS AND ANNUAL SUMMARY REPORT
PROGRAM ID...: (PE-771) INTEGRATED PESTICIDE MANAGEMENT
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
20-34 DAA FOR PESTICIDE PROGRAMS
CURR RESULTS: FIELD WORK REVEALS THAT CULLS DISCARDED AT HARVEST PROVIDE SIGNIFICANT CONTINUITY TO POPULATIONS OF THE ONION MAGGOT; MOVEMENT OF THE MAGGOT THROUGH SOIL IS ORIENTED TOWARD SUBSURFACE ONION VOLITILES WHICH COULD BE DECTECTED ONLY BY THIRD INSTAR LARVAE. THE HABITAT TYPE PLAYS A SIGNIFICANT ROLE IN ONION MAGGOT DISEASE DESNSITY AND SPREAD.
ORDIS CODES..: RECN-005264 SSIE-GMA 6204 EPA -R806034-02 ORD -RW10B30-5079
PE -771
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO EVALUATE ECOSYSTEM DESIGN AND MANAGEMENT ALTERNATIVES THAT NOW EXIST TO ARTICULATE STRUCTURAL OPTIONS OF THE ONION ECOSYSTEM UNDER CONSIDERATION SO DESIRED BEHAVIOR OF THE SYSTEM CAN BE ATTAINED; APPLY A SELECTED APPROACH TO A PROTOTYPE ECOSYSTEM; AND TEST ALTERNATIVE DESIGN AND MANAGEMENT OPTIONS WITHIN THE CONCEPTUAL FRAMEWORK. APPROACH: FIELD AND BIOLOGICAL RESEARCH COVERS POPULATION DYNAMICS OF THE ONION MAGGOT PATHOGENS AS A POTENTIAL CONTROL MODE, WEEDINESS OF COMMON PURSLANE AND THE PARASITE THE PURSLANE SAWFLY, AND DEVELOPMENT OF AN ONION PLANT MODEL.

130.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

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Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE

EPA R806041 02

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Ammonia Removal From Steel Industry Wastewater

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Francis B. Birkner, Professor, Department of Civil Engineering,
University of Maryland
College Park, MD 20742

Graduate Student

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Maryland
College Park MD 20742

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SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Experimental results which have been obtained indicate that polymer-coated glass beads can adsorb ammonia from aqueous solution and that polymers of carboxylic acid functionality and high charge density function best. It was also observed that polymer can be desorbed from the glass beads resulting in an abnormally high level of ammonia breaking through the column at relatively low through-put volumes. It was hypothesized that the elution of a loosely bound ammonia-polymer complex was responsible for the experimental observation.

In an attempt to improve the bond between the polymer and the surface of the glass beads, a silane coupling agent was applied to the glass surface prior to the polymer coating. This pretreatment of the glass filter media has been shown to increase the effectiveness of ; the polymer coatings for the removal of ammonia.

The adsorption of ammonia from distilled water solutions may be significantly different from the adsorption which will occur from an actual steel industry wastewater which contains other pollutants. Therefore, in order to translate the experimental research which has been conducted in the initial phase of this investigation into practice, a study is needed to determine whether the constituents in steel industry wastewater interfere with the removal of ammonia, and to what extent they interfere.

An evaluation of the filtration process for the treatment of actual steel industry wastewater will be conducted using 0.3 mm diameter, silane treated, polymer-coated glass spheres packed in a lucite filtration column. Column design and operation will be optimized to achieve the maximum removal of ammonia

•PROJECT: 001969-INVESTIGATION OF FILTER ARTIFACTS WHEN SAMPLING AIRBORNE ORGANIC PARTICULATES
TASK =GC2P -000540 ••EPA=R806042-02 •• (GRANT)
STARTING/ COMPLETION DATE 07/78 - 07/80 : FY80

EPA OFFICER.:	L STOCKBURGER	EPA/ESRL - RTP	919-541-2254
INVESTIGATOR.:	JN PITTS	UNIV OF CALIFORNIA	AIR POLL RES CTR
	GJ DOYLE	UNIV OF CALIFORNIA	AIR POLL RES CTR
	DR FITZ	UNIV OF CALIFORNIA	AIR POLL RES CTR

MILESTONES...: 07/79 -REPORT COVERING YEAR 01 DESIGN, CONSTRUCTION, AND TEST RESULTS
07/80 -FINAL ORD REPORT
PROGRAM ID...: (PE-C2P) ATMOS TRANS OF ENERGY RELATED POLLUTANTS
MANDATE......: 10-02 CLEAN AIR ACT
20-63 DAA FOR ENVIRONMENTAL PROCESSES AND EFFECTS
CURR. RESULTS: DESIGN AND CONSTRUCTION COMPLETED ON ULTRA HIGH-VOLUME FOUR BY FOUR SAMPLER. DESIGN, CONSTRUCTION AND TESTING COMPLETED ON PROTOTYPE DIFFUSIVE SAMPLER. EXPERIMENTAL DESIGN COMPLETED ON ARTIFACT FORMATION EFFECTS OF FILTER MEDIA. AMBIENT SAMPLING SITE ESTABLISHED IN EL MONTE, CALIFORNIA.

ORDIS CODES..:	RECN-001969	SSIE-GMA 4907 2	EPA -R806042-02	ORD -RG10B30-5080
	LABN-G832B-EA-083	PE -C2P		
PROJ STATUS..:	ACTIVE -MULTIYEAR	INFO-UPDATED	ENTERED - UNKNOWN	UPDATED- 06-28-80
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS GRANT ARE TO SUBSTANTIATE THE EXISTENCE OF SAMPLING ERROR (SO-CALLED "FILTER ARTIFACTS") SUSPECTED IN THE ANALYSIS OF THE ORGANIC FRACTION OF THE PARTICULATE COLLECTED IN POLLUTED ATMOSPHERES, TO DETERMINE THE MECHANISM(S) BY WHICH SUCH ARTIFACTS OCCUR IN PARTICULATE POLYCYCLIC ORGANIC MATTER (POM), AND TO PROVIDE COLLECTION METHODS WHICH MINIMIZE ARTIFACT ERRORS. APPROACH: (1) DESIGN, CONSTRUCT, AND TEST A SAMPLING DEVICE WHICH ALLOWS THE COLLECTION OF PARTICULATE ONTO SEVERAL FILTERING MEDIA SIMULTANEOUSLY FROM THE SAME POLLUTED ATMOSPHERE, (2) DESIGN, CONSTRUCT, AND TEST A FILTER EXPOSURE APPARATUS AND TO SYSTEMATICALLY INVESTIGATE FILTER ARTIFACT FORMATION ON PRE-COLLECTED FILTERS USING THE EXPOSURE APPARATUS.

·PROJECT: 000796-ALTERNATE WATER DISINFECTION SCHEMES FOR REDUCED TRIHALOMETHANE FORMATION
TASK =CC61 -01T071 ··EPA=R806046 ·· (GRANT)
STARTING/ COMPLETION DATE : 08/78 - 12/80 : FY80

EPA OFFICER.:	GS LOGSDON	EPA/MERL - CINC	FTS 8-684-7228
INVESTIGATOR.:	CA SORBER	UNIV OF TEXAS	CTR FOR APPL RES & TECH
	RF WILLIAMS	UNIV OF TEXAS	CTR FOR APPL RES & TECH
	BE MOORE	UNIV OF TEXAS	CTR FOR APPL RES & TECH

MILESTONES...: 12/78 -CONSTRUCT PILOT SYSTEMS
06/79 -COMPLETE CHLORINE MIXING TESTS
10/79 -COMPLETE CHLORINE-AMMONIA TESTS
02/80 -COMPLETE CHLORINE DIOXIDE TESTS
06/80 -DEVELOP PREDICTIVE MODEL FOR PROCESS CONTROL
12/80 -REPORT

PROGRAM ID...: (PE-C61) DRINK WATER TREATMENT & GROUND WATER PROT

MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-15 SAFE DRINKING WATER ACT

CURR. RESULTS: ALGAE AND ALGAL EXTRACELLULAR PRODUCTRS PRODUCE THM CONCENTRATIONS COMPARED TO YIELDS FROM HUMIC AND FULVIC ACIDS "THM PRODUCTION FRO¢M ALGAE PRECURSOR" PRESENTED AT 3RD CONF. ON WATER CHLORINATION, COLO SPRINGS, OCT.31,-NOV.2 1<79. K BRILEY , R WILLIAMS, K LONGLEY, C SORBER PROTOTYPE SYSTEM INSTALLED AND OPERATING. LAB STUDIES ALSO UNDERWAY.

ORDIS CODES..:	RECN-000796	SSIE-GMA 5098 2	EPA -R806046	ORD -RC10B30-1080
	LABN-C824A-01T71	PE -C61		
PROJ STATUS..:	ACTIVE -MULTIYEAR	INFO-UPDATED	ENTERED - UNKNOWN	UPDATED- 06-28-80
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT.....: OBJECTIVE: THE OVERALL OBJECTIVES OF THIS STUDY ARE TO QUANTITATIVELY DESCRIBE THE ROLE OF RAPID MIXING OF DISINFECTANTS INTO DRINKING WATER WITH PARTICULAR REGARD TO MINIMIZING TRIHALOMETHANE PRODUCTION AND OPTIMIZING THE DISINFECTION PROCESS. APPROACH: 1. EVALUATE DISINFECTION EFFICIENCY AND THM FORMATION AT 75 GPM AND DISINFECTANT DOSES OF 0.5, 1.5, AND 5.0 MG/L AS CHLORINE FOR: A. CHLORINE ALONE ADDED AS DISINFECTANT. B. CHLORINE ADDED AT RAPID MIXER AS THE DISINFECTANT FOLLOWED BY THE ADDITION OF AMMONIA AT A CHLORINE TO AMMONIA MOLAR RATION OF 3:1 AFTER A CHLORINE CONTACT TIME OF 15 SECONDS. C. CHLORINE DIOXIDE PLUS CHLORINE IN A 3:1 RATIO. 2. DEVELOP PREDICTIVE MODEL FOR PROCESS CONTROL. ADDRESS EFFICACY AND ECONOMY OF DISINFECTANTS STUDIED IN RELATION TO MAXIMIZING DISINFECTION EFFICIENCY AND MINIMIZING THM PRODUCTION. 3. EVALUATE ROLE OF CHLOROPHYLL-A AND HUMIC ACIDS AS THM PRECURSORS. 4. DETERMINE ENTEROVIRUS BACKGROUND CONCENTRATIONS AND EVALUATE VIRAL INACTIVATION EFFICIENCY OF DISINFECTION SCHEMES STUDIED.

*PROJECT: 001686-AIRBORNE SOLAR RADIATION MEASUREMENT FOR STATE

TASK =G603A-AA-134 **EPA=R806048-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/78 - UNK : FY80

EPA OFFICER..: FS BINKOWSKI EPA/ESRL - RTP FTS 8-629-4524
INVESTIGATOR.: BA ALBRECHT PENNSYLVANIA STATE UNIV EARTH & MINERAL SCI
MILESTONES...: 08/78 -COMPLETE FIELD MEASUREMENTS
11/78 -MEASURED DATA AVAILABLE TO OTHER INVESTIGATORS
06/79 -REPORT ON RADIANT ENERGY BALANCES
PROGRAM ID...: (PE-603) TRANS. AND FATE -AIR
FINAL OUTPUT.: RADIATION DATA FOR METEOROLOGICAL CONDITIONS FOUND & ANALYSES OF BOUNDARY LAYER RADIATION BALANCES
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: FIELD WORK PERFORMED 8/78
DATA CHECKED AND VALIDATED, AND UNPUBLISHED REPORT DESCRIBING FORMAT OF TAPES LISTING ALL AVAILABLE DATA PREPARED. COPIES OF DATA ARE AVAILABLE FROM STATE DATA BANK.
ORDIS CODES..: RECN-001686 SSIE-GMA 4916 2 EPA -R806048-01 ORD -RG10B30-1080
PE -603
PROJ STATUS..: PROJECT-COMPLETED INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THIS TASK IS PART OF A LARGE PROGRAM TO DETERMINE TRANSPORT, TRANSFORMATION, AND REMOVAL PROCESSES AND RATES AFFECTING ATMOSPHERIC CONCENTRATIONS OF SULFUR COMPOUNDS. INITIAL EMPHASIS IS ON STUDIES OF DEFINABLE PLUMES OUT TO TIMES AND DISTANCES OF 24 HRS. AND 500 KM, RESPECTIVELY. MEASUREMENTS OF SOLAR AND LONGWAVE (THERMAL) RADIATION WILL BE MADE USING UPWARD AND DOWNWIND FACING SENSORS TO CHARACTERIZE THE RADIANT FLUXES AND FLUX DIVERGENCE WHICH ARE FUNDAMENTAL PARAMETERS AFFECTING BOUNDARY LAYER STRUCTURE. OUTPUT OF THIS TASK WILL BE RADIATION DATA FOR A VARIETY OF METEOROLOGICAL CONDITIONS ENCOUNTERED DURING THE STUDY PERIOD, AND ANALYSES OF THE BOUNDARY LAYER RADIATION BALANCES.

*PROJECT: 001734-STUDIES OF PLANETARY BOUNDARY LAYER

TASK =G603A-AB-005 **EPA=R806048-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/78 - 03/81 : FY78

EPA OFFICER..: FS BINKOWSKI EPA/ESRL - RTP FTS 8-629-4524
INVESTIGATOR.: AK BLACKADAR PENNSYLVANIA STATE UNIV EARTH & MINERAL SCI
DW THOMSON PENNSYLVANIA STATE UNIV EARTH & MINERAL SCI
MILESTONES...: 09/80 -FINAL REPORT
PROGRAM ID...: (PE-603) TRANS. AND FATE OF POLLUTANTS -AIR
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-001734 SSIE-GMA 4914 EPA -R806048-01 ORD -RG10B30-1078
LABN-G603A-AB-19 PE -603
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 77
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THIS STUDY OF THE PLANETARY BOUNDARY LAYER (PBL) WILL INCLUDE FURTHER DEVELOPMENT OF NEW TREATMENTS OF THE CONVECTIVE MIXED LAYER, THE SURFACE ENERGY BUDGET AND THE SURFACE FLUX OF A POLLUTANT. A SECOND PART OF THE STUDY WILL BE A MULTI-PLATFORM FIELD STUDY OF THE (PBL).

*PROJECT: 004796-BOUNDARY LAYER MODEL IMPROVEMENT AND VALIDATION

TASK =G603A-AB-019 **EPA=R806048-0152** (GRANT)
STARTING/ COMPLETION DATE : 00/79 - 03/81 : FY79

EPA OFFICER.: FS BINKOWSKI   EPA/ESRL - RTP   FTS 8-629-4524
INVESTIGATOR.: AK BLACKADAR   PENNSYLVANIA STATE UNIV   EARTH & MINERAL SCI
DW THOMSON   PENNSYLVANIA STATE UNIV   EARTH & MINERAL SCI
MILESTONES...: 06/80 -REPORT ON BOUNDARY LAYER MODEL
03/81 -FINAL REPORT ON BOUNDARY LAYER MODEL
PROGRAM ID...: (PE-603)   TRANS. AND FATE -AIR
FINAL OUTPUT.: REPORT ON BOUNDARY LAYER MODEL
MANDATE......: 10-02   CLEAN AIR ACT
CURR. RESULTS: MEASUREMENTS MADE AND ANALYSES BEGUN.
MODELS COMPLETED AND BEING REFINED: DATA BEING TAKEN.
ORDIS CODES..: RECN-004796   SSIE-GMA 5983 1   EPA -R806048-0152   ORD -RG10B30-1079
LABN-G603A-AA-134   PE -603
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- JAN-MAR 80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: 1. MODEL SURFACE EXCHANGE PROCESSES; 2. MODEL PLANETARY BOUNDARY LAYER, WIND, TEMPERATURE, MOISTURE PROFILES; 3. MEASURE WIND, TEMPERATURE PROFILES, ALONG WITH OTHER PBL CHARACTERISTICS. APPROACH: SIMPLIFIED NUMERICAL MODELS WILL BE COMPARED WITH FIELD DATA AND OTHER EXISTING DATA SETS.

*PROJECT: 000040-RECOVERY STUDIES OF PESTICIDES FOR SURFACE AND DRINKING WATERS

TASK =A614 -000041 **EPA=R806049-01 ** (GRANT)
STARTING/ COMPLETION DATE : 06/78 - 06/83 : FY79

EPA OFFICER.: JJ LICHTENBERG   EPA/EMSL - CINC   FTS 8-684-7308
INVESTIGATOR.: TF MCGRATH   SUSQUEHANNA UNIV   UNDERGRADUATE SCH
MILESTONES...: 06/79 -PROGRESS REPORT
PROGRAM ID...: (PE-614)   PUBLIC SECTOR ACTIVITIES- WATER SUPPLY
MANDATE......: 10-01   FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: DATA ON 33 COMPOUNDS OBTAINED.
ORDIS CODES..: RECN-000040   SSIE-GMA 5084 1   EPA -R806049-01   ORD -RA10B30-1079
PE -614
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- JUL-SEP 79
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THIS PROJECT INVOLVES ACQUISITION OF ACCURACY AND PRECISION DATA FOR A VARIETY OF ORGANOCHLORINE AND ORGANOPHOSPHORUS PESTICIDES FROM DRINKING WATER AND SURFACE WATER. APPROACH: THE OFFICIAL EPA METHODS, USING LIQUID-LIQUID EXTRACTION AND GAS CHROMATOGRAPHIC (ELECTRON CAPTURE AND FLAME PHOTOMETRIC) ANALYSIS WILL BE EMPLOYED. FORTY-TWO COMPOUNDS, SELECTED ON THE BASIS OF EITHER THEIR INCLUSION IN THE EPA OR BECAUSE OF THEIR CURRENT INTEREST TO THE EPA AND THE PUBLIC, WILL BE STUDIED. RESULTS TO DATE: DATA ON 33 COMPOUNDS HAVE BEEN OBTAINED.

PROJECT: 003765-CHEMICAL AND BIOLOGICAL CHARACTERIZATION OF OIL SHALE PROCESSING AND COAL CONVERSION EFFLUENTS
TASK =N831 -000006 --EPA=R806051-02 ** (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 08/80 : FY79

EPA OFFICER..: LH MUELLER EPA/ERL - DULUTH FTS 8-783-9529
INVESTIGATOR.: RK SKOGERBOE COLORADO STATE UNIV CHEM/ELEC ENG DEPTS
PROGRAM ID...: (PE-831) EFFECTS OF ENERGY REL POLLUTANTS
MANDATE......: 30-99 CHEMISTRY BIOLOGY
ORDIS CODES..: RECN-003765 SSIE-GMA 5211 1 EPA -R806051-02 ORD -RN10B30-3079
LABN-N625A-087 PE -831
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE OVERALL OBJECTIVE IS TO PROVIDE PREDICTIVE INFORMATION ABOUT THE EFFECTS OF POLLUTANTS FROM OIL SHALE PROCESSING AND COAL CONVERSION ON SURFACE WATERS, AND THE AQUATIC BIOTA. THE THREE AREAS OF INVESTIGATION INCLUDE: (1) CHEMICAL CHARACTERIZATION OF EFFLUENTS AND BYPRODUCTS ASSOCIATED WITH EACH OF THE ABOVE ENERGY DEVELOPMENT AREAS; (2) FIELD SURVEYS AND ANALYSES OF AQUATIC ORGANISMS IN STREAMS WHICH ARE, OR MAY BE, IMPACTED BY THESE EFFLUENTS; AND (3) LABORATORY BIOASSAYS OF KNOWN AND POTENTIAL TOXICANTS ASSOCIATED WITH THESE EFFLUENTS.

*PROJECT: 003224-VERIFICATION OF A PESTICIDE TRANSPORT AND BIOACCUMULATION MODEL

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                TASK =KC34 -000463 **EPA=R806059     ** (GRANT)
                STARTING/ COMPLETION DATE : 10/78 - 10/81 :   FY80
 EPA  OFFICER.: TO BARNWELL              EPA/ERL - ATHENS              FTS 8-250-3175
 INVESTIGATOR.: JL SCHNOOR               UNIV OF IOWA                  ENG DEPT
                DB MCDONALD              UNIV OF IOWA                  ENG DEPT
 MILESTONES...: 10/79 -INTERIM REPORT - PHASES 1 & 2
                10/80 -INTERIM REPORT - PHASE 3
                10/81 -FINAL REPORT
 PROGRAM ID...: (PE-C34 )          RENEWABLE RESOURCES -WATER QUALITY
 MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
                10-03      TOXIC SUBSTANCES CONTROL ACT
                10-06      FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
                20-34      DAA FOR PESTICIDE PROGRAMS
                20-31      DAA FOR TESTING AND EVALUATION
                20-R07     EPA REGION VII
 CURR. RESULTS: PRINCIPAL INVESTIGATOR HAS DEVELOPED STEADY-STATE
                SOLUTION FOR MODEL AND IS INVESTIGATING USE OF
                DIMENSIONLESS NUMBERS TO CHARACTERIZE SYSTEM RESPONSE.
                THE MODEL FOR DILLDREN DESCRIBED IN THE INTERIM REPORT HAS
                BEEN EXTENDED TO ATRAZINE AND LASOO WITH GOOD RESULTS.
 ORDIS CODES..: RECN-003224        SSIE-GMA  5015 2     EPA -R806059        ORD -RK10B30-5080
                PE  -C34
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
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ABSTRACT.....: THE PURPOSE OF THIS RESEARCH IS TO PROVIDE VERIFICATION OF THE STANFORD RESEARCH INSTITUTE (SRI) MODEL FOR A NUMBER OF DIFFERENT PESTICIDES. PESTICIDE RESIDUE DATA (FISH, SEDIMENT, AND WATER) THAT HAVE BEEN COLLECTED FROM THE CORALVILLE RESERVOIR IN IOWA DURING 1968-1977 WILL BE USED. THE PROJECT HAS THREE OBJECTIVES: (1) TO CALIBRATE AND VERIFY THE SRI MODEL FOR CORALVILLE RESERVOIR, (2) TO EVALUTE AND, IF NECESSARY, IMPROVE THE MODEL FORMULATIONS AND EASE OF USE, AND (3) TO USE THE MODEL TO ASSESS THE IMPROVEMENTS IN BIOTA AND WATER QUALITY THAT WOULD ACCRUE FROM VARIOUS CONTROL STRATEGIES. THERE WILL BE FOUR PHASES TO THE PROJECT: (1) DATA REDUCTION AND ANALYSIS, (2) SOFTWARE DEVELOPMENT, (3) CALIBRATION, VERIFICATION, AND EVALUATION OF THE MODEL, AND (4) SIMULATION OF SCENARIOS OF DECREASED PESTICIDE LOAD. PHASES (1) AND (2) WILL BE DONE IN THE FIRST YEAR OF THE PROJECT WITH PHASE (3) TAKING PLACE IN THE SECOND YEAR AND PHASE (4) IN THE THIRD YEAR.

*PROJECT: 001050-STUDY OF MICROBIAL AEROSOLS EMITTED FROM WATER R[illegible]CLAMATION PLANT

TASK =DC27 -1C0004 **EPA=R806062 ** (GRANT)
STARTING/ COMPLETION DATE : 07/78 - 03/81 : FY80

EPA OFFICER.:	W JAKUBOWSKI	EPA/HERL - CINC	FTS 8-684-7385	
INVESTIGATOR.:	KF FANNIN	I I T RES INST	CHICAGO	IL 60616

MILESTONES...: 12/79 -COMPLETION OF PRE-OPERATIONAL DATA COLLECTION - INTERIM REPORT
12/80 -COMPLETION OF POST-OPERATIONAL DATA COLLECTION
03/81 -ASSESSMENT OF CONTRIBUTION OF AN ACTIVATED SLUDGE PLANT TO MICROBIOLOGIC AIR QU

PROGRAM ID...: (PE-C27) HEALTH EFFECTS - WATER QUALITY

FINAL OUTPUT.: ASSESSMENT OF CONTRIBUTION OF AN ACTIVATED SLUDGE PLANT TO MICROBIOLOGIC AIR QUALITY

MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-12 DAA FOR WATER PROGRAM OPERATIONS
20-R05 EPA REGION V

CURR. RESULTS: PROJECT MANUAL FOR TRAINING OF FIELD CREW PERSONNEL DEVELOPED. AEROSOL SAMPLING BEFORE PLANT START-UP COMPLETED. THIRD PRE-OPERATIONAL SAMPLING PERIOD WILL BE COMPLETED EARLY NOV. 79.

ORDIS CODES..:	RECN-001050	SSIE-GMA 5144 2	EPA -R806062	ORD -RD10B30-5080
	LABN-D607A-006B	PE -C27		
PROJ STATUS..:	ACTIVE -MULTIYEAR	INFO-UPDATED	ENTERED - UNKNOWN	UPDATED- 06-28-80
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT.....: OBJECTIVE: DETERMINE THE OCCURRENCE OF MICROORGANISMS IN AEROSOLS IN THE VICINITY OF THE O'HARE WATER RECLAMATION PLANT (OWRP) IN DES PLAINES, ILLINOIS DURING THE FALL AND SPRING MONTHS PRECEDING AND FOLLOWING INITIATION OF PLANT OPERATIONS. APPROACH: USING SLIT SAMPLERS, MULTI-STAGED IMPACTORS AND LARGE VOLUME AIR SAMPLERS, SAMPLES WILL BE COLLECTED AT ONE UPWIND AND THREE DOWNWIND SITES FROM THE AERATION TANKS. BACTERIAL, COLIPHAGE AND ANIMAL VIRUS AEROSOL CONCENTRATIONS WILL BE DETERMINED BEFORE AND AFTER THE PLANT IS PLACED IN OPERATION.

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NOTICE OF RESEARCH PROJECT

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PROJECT NO. (Do not use this space)

SSIE

EPA R 806065

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

An Economic Analysis of an Agro-ecosystem for Pest Control

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Thomas C. Edens: Principal Investigator, Depts. of Resource Development and Entomology

Dr. Dean L. Haynes: Co-principal Investigator, Dept. of Entomology

Dr. R. Lal Tummala: Co-principal Investigator, Depts. of Ent. & Electrical Engin. & Systems Science

NAME AND ADDRESS OF APPLICANT INSTITUTION

Department of Entomology
Michigan State University, East Lansing, MI 48824

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

This research project addresses the questions of (a) what is the range of potential agricultural pest management options available, and (b) what are the likely permissive and inhibiting influences on adoption of new practices. The management options evaluated include many which are not usually visible in a commercial ecosystem. We have established crop production prototypes in chemically pristine areas in order to analyze the primary and secondary biological interactions. Some of these relationships provide valuable insights to heretofore undiscovered management strategies.

In order to assess the potential for transfering some of these new management practices to commercial firms, we have initiated extensive surveys of a prototype commercial area. These surveys will be expanded to include organic growers in the next reporting period. The range of production techniques falls along a continuum from pristine and organic to high energy capital intensive. Growers are categorized according to their practices and positioned on this continuum. Attitudes (and abilities) toward change generally and adoptation to less capital intensive techniques are evaluated in the context of each grower's place on the continuum

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OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

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PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA R806066-02-0

TITLE OF PROJECT

In vivo Analysis of UV-B Induced Photooxidations

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Norman I. Krinsky, Dept. Biochemistry and Pharmacology, Professor

NAME AND ADDRESS OF APPLICANT INSTITUTION

Tufts University School of Medicine
136 Harrison Avenue
Boston, Massachusetts 02111

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who re- -est such information. Your summary is to be used for these purposes.

Mice will be injected with * evalonic acid which will result in the labeling of their skin steroids. These animals will then be irradiated with UV-B, the skin steroids extracted, and the various oxidation products of cholesterol will be analyzed. Based on the types of oxidation products present, it will be possible to determine the mechanism of photochemical oxidations taking place when UV-B radiance is increased.

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*PROJECT: 000802-STABILITY AND EFFECTIVENESS OF CHLORINE, CHLORAMINE AND CHLORINE DIOXIDE
                 IN A WATER DISTRIBUTION SYSTEM
                  TASK =CC61 -S2T045 **EPA=R806074-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/78 - 01/81 :   FY80
 EPA  OFFICER.: RH TAYLOR               EPA/MERL - CINC                   FTS 8-684-7232
 INVESTIGATOR.: VP OLIVIERI             JOHNS HOPKINS UNIV                BALTIMORE            MD 21218
                K  KAWATA               JOHNS HOPKINS UNIV                BALTIMORE            MD 21218
                CW KRUSE                JOHNS HOPKINS UNIV                BALTIMORE            MD 21218
 MILESTONES...: 08/79 -CONTINUATION FUNDED
 PROGRAM ID...: (PE-C61 )         DRINK WATER TREATMENT & GROUND WATER PROT
 MANDATE......: 10-15      SAFE DRINKING WATER ACT
 CURR. RESULTS: MODIFICATIONS TO WATER DISTRIBUTION SYSTEM COMPLETED.
                SHORT TERM DISINFECTANT EXPOSURE OF F2 PHAGE AND E. COLI
                SHOW CHLORINE DIOXIDE AND FREE CHLORINE ARE VERY EFFECTIVE
                BUT CHLORINES ARE NOT STUDIES ON EFFECTIVENESS OF THESE
                DISINFECTANTS ON CROSS-CONNECTION SLUGS ARE BEGINNING
 ORDIS CODES..: RECN-000802         SSIE-GMA  5100 2      EPA -R806074-02      ORD -RC10B30-1080
                LABN-C614A-092      PE  -C61
 PROJ STATUS..: PROJECT-COMPLETED   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: EVALUATE THE PERFORMANCE OF FREE CHLORINE, CHLORAMINES, AND CHLORINE DIOXIDE RESIDUALS IN A FULL SCALE SECTION OF AN EXISTING WATER,DISTRIBUTION SYSTEM WHEN CHALLENGED WITH A SEWAGE CONTAMINANT SIMULATING A CROSS CONNECTION OR BACK SIPHONAGE. APPROACH: A PORTION OF AN UNUSED WATER DISTRIBUTION ON A MILITARY RESERVATION WILL BE MODIFIED TO ALLOW FOR MONITORING OF THE FATE OF CONTAMINANTS AND DISINFECTANTS INTRODUCED INTO THE WATER DISTRIBUTION NETWORK.

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SSIE
EPA R806083

TITLE OF PROJECT

Environmental Impact of Energy-Related Organic Compounds on Aquatic Organisms

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Robert M. Carlson, Principal Investigator
Chemistry Department
Professor

Alan R. Oyler
Chemistry Department
Research Fellow

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Minnesota
Minneapolis, MN 55455

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The goal of the project is to access the potential hazard to aquatic organisms of exposure to sediments, suspended microparticulates, and water known to contain compounds originally associated with fossil fuels or derived from the processing and combustion of fossil fuels. These energy related organic compounds may include polynuclear aromatic hydrocarbons (PAH) and their sulfur and nitrogen heterocyclic analogs, phenols, aromatic nitro compounds, cyano-arenes, aldehydes and ketones, amines, and carboxylic acids and esters. The present work is mainly focused upon the PAH, nitrogen- and sulfur-containing heterocycles, and phenols.

*PROJECT: 003522-EFFECTS OF SEDIMENT-TROPHIC INTERACTIONS ON STREAM COMMUNITIES

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                 TASK =M820 -000011 **EPA=R806087-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 08/78 - 03/81 :   FY79
EPA  OFFICER.: KW MALUEG              EPA/ERL - CORVALLIS            FTS 8-420-4761
INVESTIGATOR.: NH ANDERSON            OREGON STATE UNIV              SCH OF AGRIC/ENTOMOL DEPT
MILESTONES...: 07/80 -FINAL REPORT
PROGRAM ID...: (PE-820 )          FRESHWATER ECO EFFECTS  - WATER QUALITY
FINAL OUTPUT.: REPORT TO INCREASE UNDERSTANDING OF SEDIMENTATION
               EFFECTS ON FISH.
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: ALL FIELD SAMPLING HAS BEEN COMPLETE.  VERTEBRATE
               DENSITIES AND BIOMASSES HAVE BEEN ESTIMATED, AND HAVE BEEN
               CORRELATED WITH SEDIMENT LEVELS.  INVERTEBRATE SAMPLES
               ARE BEING IDENTIFIED.  LABORATORY EXPERIMENTS ARE
               IN PROCESS.
ORDIS CODES..: RECN-003522         SSIE-GMA  5035 1      EPA -R806087-01       ORD -RM10B30-1079
               LABN-M608A-224      PE  -820
PROJ STATUS..: PROJECT-ACTIVE      INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO DETERMINE HOW SEDIMENT IMPACTS IN HABITAT AND TROPHIC PROCESSES INFLUENCE STREAM
                INVERTEBRATES AND TO EVALUATE THREE METHODS OF INVERTEBRATE COMMUNITY ANALYSIS (DIVERSITY,
                FUNCTIONAL GROUPING, AND SPECIES TOLERANCE INDEX) AS WAYS OF DETECTING CHANGE AND AS SOURCES OF
                INFORMATION ON STREAM HEALTH IN GENERAL. FINAL OUTPUT: REPORT WHICH WILL INCREASE OUR UNDERSTANDING
                OF SEDIMENTATION EFFECTS ON FISH.
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*PROJECT: 001813-MECHANISM AND KINETICS OF AROMATIC REACTIONS IN SMOG

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                 TASK =GC05 -000294 **EPA=R806093-02  ** (GRANT)
                 STARTING/ COMPLETION DATE : 06/75 - 06/81 :   FY80
EPA  OFFICER.: MC DODGE               EPA/ESRL - RTP                 FTS 8-629-2374
INVESTIGATOR.: DG HENDRY              S R I INTERNATL                MENLO PARK               CA 94025
MILESTONES...: 12/81 -FINAL REPORT ROLE OF AROMATIC HYDROCARBONS
PROGRAM ID...: (PE-C05 )          TRANS. AND FATE - AIR
FINAL OUTPUT.: REPORT ON ROLE OF AROMATIC HYDROCARBONS
MANDATE......: 10-02     CLEAN AIR ACT
CURR. RESULTS: INVESTIGATOR HAS STUDIED DISSOCIATION REACTION OF PBZN AND
               DETERMINED RATE CONSTANTS FOR REACTION OF PEROXYBENSOYL RADICALS
               WITH NO AND NO2 AND OBTAINED RATE CONSTANTS FOR REACTION OF
               CREOSOL WITH OH AND O3.
ORDIS CODES..: RECN-001813         SSIE-GMA  5171 2      EPA -R806093-02       ORD -RG10B30-1080
               LABN-G603A-AC-021   PE  -C05
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS RESEARCH PROGRAM IS TO ELUCIDATE THE PRIMARY AND SECONDARY PRODUCTS
                FORMED IN THE OXIDATION OF AROMATIC HYDROCARBONS. APPROACH: THE INVESTIGATOR WILL (1) OBTAIN A
                PRODUCT BALANCE FOR THE TOLUENE PLUS OH REACTION, (2) STUDY THE REACTION OF BENZALDEHYDE AND CRESOL
                WITH OH, (3) DETERMINE QUANTUM YIELDS FOR THE PHOTOLYSIS OF BENZALDEHYDE, (4) STUDY THE REACTIONS
                OF PHENOXY RADICALS AND (5) MODEL AROMATIC/NOX SMOG CHAMBER DATA.
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*PROJECT: 004400-PRESENCE OF PRIORITY POLLUTANTS IN SEWAGE AND THEIR REMOVAL IN SEWAGE TREATMENT PLANTS
TASK =CC36 -5TAF03 **EPA=R806102-01 ** (GRANT)
STARTING/ COMPLETION DATE : 00/79 - 06/80 : FY80

EPA OFFICER.: SA HANNAH — EPA/MERL - CINC — FTS 8-684-7651
INVESTIGATOR.: FB DEWALLE — UNIV OF WASHINGTON — SCHOOL OF PUBLIC HLTH
ES CHIAN — GEORGIA INST OF TECH — SCH OF CIVIL ENG
PROGRAM ID...: (PE-C36) URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
FINAL OUTPUT.: ANALYTICAL PROTOCOL FOR PRIORITY POLLUTANTS
RESULTS OF SURVEY OF 25 TREATMENT PLANT FOR PRIOR. POLL.
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-03 TOXIC SUBSTANCES CONTROL ACT
20-11 DAA FOR WATER PLANNING AND STANDARDS
20-12 DAA FOR WATER PROGRAM OPERATIONS
CURR. RESULTS: SAMPLING OF ALL PLANTS HAS BEEN COMPLETED AND SAMPLES ARE BEING ANALYZED PRELIMINARY RESULTS FRON THE FIRST THREE PLANTS SHOWED THE PRESENCE OF 87 PRIORITY POLLUTANTS WITH 24 ORGANIC AND 13 METALS BEING FOUND IN ALL 3 PLANTS.
ORDIS CODES..: RECN-004400 SSIE-GMA 5674 1 EPA -R806102-01 ORD -RC10B30-5080
PE -C36
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVES/APPROACH: THE PROPOSED STUDY WILL CONDUCT A SURVEY TO DETECT THE PRESENCE OF PRIORITY POLLUTANTS IN RAW SEWAGE IN MAJOR METROPOLITAN AREAS DURING BOTH THE DRY AND WET SEASON. THE REMOVAL OF THESE POLLUTANTS BY SEDIMENTATION AND BIOLOGICAL DEGRADATION WILL BE ASSESSED BY MONITORING FOR TRACE POLLUTANTS IN PRIMARY AND SECONDARY SEWAGE EFFLUENT. SINCE MANY POLLUTANTS ACCUMULATE IN THE BACTERIAL BIOMASS, ANAEROBIC DIGESTER SLUDGE WILL ALSO BE TESTED FOR PRIORITY POLLUTANTS. EACH SAMPLE WILL BE ANALYZED FOR VOLATILE CHLORINATED HYDROCARBONS USING A PURGING TECHNIQUE. CHLORO- AND NITROBENZENES, BIPHENYLS, ETHERS, NITROSAMINES AND PHTHALATES WILL BE OBTAINED IN THE NEUTRAL/BASE METHYLENE CHLORIDE EXTRACT, WHILE CHLORINATED PHENOLS WILL BE RECOVERED IN THE ACID METHYLENE CHLORIDE EXTRACT. POLYNUCLEAR AROMATIC HYDROCARBONS WILL BE EXTRACTED FROM THE WATER WITH CYCLOHEXANE WHILE PESTICIDES WILL BE RECOVERED WITH HEXANE. ANY PRIORITY POLLUTANT PRESENT ABOVE 1 PPB (1 MICROGRAM L) WILL BE ANALYZED AND QUANTIFIED.

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*PROJECT: 001847-ASSESSMENT OF TURBIDITY NETWORK DATA

                 TASK =GC05 -000341 **EPA=R806124-0151** (GRANT)
                 STARTING/ COMPLETION DATE : 08/78 - 09/80 :   FY80
  EPA  OFFICER.: HJ VIEBROCK              EPA/ESRL - RTP                    FTS 8-629-4543
  INVESTIGATOR.: E  ROBINSON              WASHINGTON STATE UNIV             DEPT OF CIVIL & ENV ENGIN
  MILESTONES...: 09/79 -PROGRESS REPORT ON ANALYSIS TECHNIQUES
                 09/80 -FINAL REPORT
                 09/80 -REPORT ON RELATIONSHIP BETWEEN ATMOSPHERIC TURBIDITY AND SYNOPTIC WEATHER SYSTE
  PROGRAM ID...: (PE-C05 )           TRANS. AND FATE - AIR
  FINAL OUTPUT.: REPORT ON RELATIONSHIP BETWEEN ATMOSPHERIC
                 TURBIDITY AND SYNOPTIC WEATHER SYSTEMS.
  MANDATE......: 10-02      CLEAN AIR ACT
                 30-99      METEOROLOGY
  CURR. RESULTS: QUALITY OF DATA ASSESSED AND DATA CLASSIFIED AND
                 PREPARED FOR STATISTICAL ANALYSES PROCEDURES.
  ORDIS CODES..: RECN-001847         SSIE-GMA  5177 2      EPA -R806124-0151     ORD -RG10B30-5080
                 LABN-G603A-AE-027   PE  -C05
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THE STUDY ARE TO DETERMINE THE TRENDS IN ATMOSPHERIC TURBIDITY AND TO
                  RELATE THESE TRENDS TO OTHER METEOROLOGICAL AND AIR QUALITY PARAMETERS. APPROACH: THE TURBIDITY
                  DATA COLLECTED OVER THE UNITED STATES SINCE 1966 WILL BE EVALUATED AND THEIR QUALITY ASSESSED. THE
                  DATA WILL THEN BE USED TO STATISTICALLY DETERMINE ANY TURBIDITY TRENDS AND THESE TRENDS WILL BE
                  CORRELATED WITH OTHER PARAMETERS TO ASCERTAIN ANY RELATIONSHIPS THAT MAY EXIST.


*PROJECT: 003919-THE EFFECTS OF DRILLING MUD ON MARINE ORGANISMS

                 TASK =QC2N -000026 **EPA=R806130-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 06/78 - 10/80 :   FY80
  EPA  OFFICER.: NL RICHARDS              EPA/ERL -GULF BREEZE              FTS-8-686-9011
  INVESTIGATOR.: RC GLASSEN               STATE UNIV SYS OF FLORIDA         DEPT. OF GEOLOGY
  MILESTONES...: 07/79 -COMPLETE METHODS DEVELOPMENT
                 10/79 -APPLY METHODS TO ENVIRONMENTAL SAMPLES
                 10/80 -REPORT
  PROGRAM ID...: (PE-C2N )           TRANS,FATE, AND EFFECTS OF ENERGY REL POLLUTANTS
  MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
                 10-02      CLEAN AIR ACT
                 10-11      MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT
                 20-10      AA FOR WATER AND WASTE MANAGEMENT
                 20-62      DAA FOR ENVIRONMENTAL ENGIN. AND TECHNOLOGY
                 20-R01     EPA REGION I
                 20-R02     EPA REGION II
                 20-11      DAA FOR WATER PLANNING AND STANDARDS
                 30-99      BIOLOGY
  CURR. RESULTS: COMPLETED PRELIMINARY RESEARCH ON METHODS DEVELOPMENT
                 TO ASSESS IMPACT OF OFFSHORE OIL AND GAS EXPLORATION
                 ON MARINE ORGANISMS.
  ORDIS CODES..: RECN-003919         SSIE-GMA  5496 2      EPA -R806130-01       ORD -RQ10B30-5080
                 LABN-0831 -0026     PE  -C2N
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DEVELOP AND APPLY METHODS TO DETERMINE ENVIRONMENTAL EFFECTS OF OFFSHORE OIL AND GAS
                  EXPLORATION ON MARINE ORGANISMS. APPROACH: DETERMINE EFFECTS THAT RESULT FROM EXPOSURE OF MARINE
                  ORGANISMS TO DRILLING MUDS AND THEIR COMPONENTS.
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*PROJECT: 004445-EFFECTS OF DRILLING MUD CONSTITUENTS ON THE SEDIMENTARY MICROFLORA AND
                 THE BASE OF THE MARINE BENTHIC FOOD WEB
                   TASK =QC2N -Q00025 **EPA=R806143-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 08/78 - 08/80 :   FY80
  EPA  OFFICER.: NL RICHARDS              EPA/ERL -GULF BREEZE             FTS-8-686-9011
  INVESTIGATOR.: DC WHITE                 FLORIDA STATE UNIV               ARTS & SCI/CHEM DEPT
  MILESTONES...: 11/79 -COMPLETE METHODS DEVELOPMENT FOR DETECTION OF MICROORGANISMS
                 08/80 -APPLY METHODS TO ENVIRONMENTAL SAMPLES AND REPORT ON RESULTS
                 08/80 -REPORT
  PROGRAM ID...: (PE-C2N )          TRANS,FATE, AND EFFECTS OF ENERGY REL POLLUTANTS
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 10-02     CLEAN AIR ACT
                 10-11     MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT
                 20-10     AA FOR WATER AND WASTE MANAGEMENT
                 20-62     DAA FOR ENVIRONMENTAL ENGIN. AND TECHNOLOGY
                 20-R01    EPA REGION I
                 20-R02    EPA REGION II
                 20-11     DAA FOR WATER PLANNING AND STANDARDS
                 30-99     BIOLOGY
  CURR. RESULTS: COMPLETED PRELIMINARY RESULTS ON METHODS DEVELOPMENT.
  ORDIS CODES..: RECN-004445          SSIE-GMA  5601 1      EPA -R806143-01       ORD -R010830-5080
                 LABN-Q625A-Q025      PE  -C2N
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
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ABSTRACT......: OBJECTIVE: DEVELOP AND APPLY METHODS TO ASSESS ENVIRONMENTAL EFFECTS OF OFFSHORE OIL AND GAS EXPLORATION ON MARINE ORGANISMS. APPROACH: DETERMINE EFFECTS THAT RESULT FROM EXPOSURE OF MARINE ORGANISMS.

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*PROJECT: 004638-OIL SHALE SYMPOSIUM - SAMPLING, ANALYSIS, AND QUALITY ASSURANCE

                TASK =B623A-000831 **EPA=R806156-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 06/78 - 01/79 :   FY79
 EPA  OFFICER.: PE MILLS                 EPA/IERL - CINC                FTS 8-684-4216
 INVESTIGATOR.: RE PRESSEY               UNIV OF DENVER                 DENVER RES INST
 MILESTONES...: 07/78 -CALL FOR PAPERS, MAIL REGISTRATION FLYERS
                08/78 -REVIEW ABSTRACTS, SELECT PAPERS
                10/78 -PAPERS DUE
                10/78 -DRAFT FINAL REPORT
                10/79 -PROCEEDINGS MAILED
                01/79 -FINAL REPORT RECEIVED
 PROGRAM ID...: (PE-623 )          EXTRACTION AND PROCESSING TECHNOLOGY -ENERGY
 MANDATE......: 20-99     OFFICE PROGRAM OPERATIONS IERL-CI
 CURR. RESULTS: SYMPOSIUM HELD MARCH 26-28, 1979 IN DENVER, CO.
                260 ATTENDEES PRESENT.  45 PAPERS PRESENT.
                PROCEEDINGS AVAILABLE THROUGH NTIS.
 ORDIS CODES..: RECN-004638          SSIE-GMA  5909       EPA -R806156-01      ORD -RB10B30-2079
                PE  -623
 PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH     ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO PROVIDE A FORUM FOR THE STATEMENT OF THE STATE-OF-THE-ART IN SAMPLING, ANALYSIS, AND
                 QUALITY ASSURANCE OF THE OIL SHALE INDUSTRY POLLUTANTS, AND OPINIONS FROM GOVERNMENTAL AND
                 INDUSTRIAL RESEARCH ORGANIZATIONS AS TO THE FUTURE NEEDS IN THESE AREAS. APPROACH: A GRANT WAS LET
                 TO DENVER RESEARCH INSTITUTE, TO WORK WITH THE USEPA IN ORGANIZING AND HOLDING A SYMPOSIUM IN WHICH
                 CURRENT RESEARCH TOPICS IN THE AREAS OF POLLUTANT SAMPLING, ANALYSIS, AND QUALITY ASSURANCE WOULD
                 BE DISCUSSED. PAPERS FROM INDUSTRY, GOVERNMENT, AND ACADEMIC RESEARCHERS WERE SOLICITED FOR
                 PRESENTATIONS AND DISCUSSION.

*PROJECT: 004889-ASSESSMENT OF ENTRAINMENT AND IMPINGEMENT OF YELLOW PERCH

                TASK =N769 -000050 **EPA=R806159-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 09/79 - 10/80 :   FY79
 EPA  OFFICER.: NA THOMAS                EPA/ERL - DULUTH               FTS 8-226-7811
 INVESTIGATOR.: AL JENSEN                UNIV OF MICHIGAN               SCHOOL OF NAT. RES.
 MILESTONES...: 09/79 -INTERIM REPORT
                10/80 -FINAL REPORT
 PROGRAM ID...: (PE-769 )          GREAT LAKES PROGRAM
 FINAL OUTPUT.: FINAL REPORT
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                20-12     DAA FOR WATER PROGRAM OPERATIONS
                20-40     AA FOR ENFORCEMENT
                20-R05    EPA REGION V
                20-R02    EPA REGION II
                30-99     FISHERIES MANAGERS, POWER REGULATION
 ORDIS CODES..: RECN-004889          SSIE-GMA  5857       EPA -R806159-01      ORD -RN10B30-5079
                PE  -769
 PROJ STATUS..: PROJECT-ACTIVE        INFO-ORIGINAL        ENTERED - UNKNOWN    UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH     ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: REVIEW STACK ASSESSMENT AND ENTRAINMENT AND IMPINGEMENT MODELS FOR THEIR ASSUMPTIONS.
                 RETURN THE IMPACT OF POWER PLANTS AND YIELDS OF YELLOW PERCH AND TO EVALUATE THE FEASIBILITY OF
                 MODIFYING AND APPLYING CONVENTIONAL FISHERIES MODELS FOR ANALYSIS OF ENVIRONMENT IMPACT. APPROACH:
                 FIELD DATA WILL BE TESTED AGAINST CONVENTIONAL YIELD AND POWER PLANT IMPACT MODELS.
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*PROJECT: 004752-DETERMINATION OF MINIMAL HUMAN INFECTIOUS DOSE OF AN ENTEROVIRUS IN DRINKING WATER
TASK =DC27 -1B0006 **EPA=R806173 ** (GRANT)
STARTING/ COMPLETION DATE : 01/79 - 01/80 : FY80

EPA OFFICER : EW AKIN EPA/HERL - CINC FTS 8-684-7218
INVESTIGATOR.: GM SCHIFF CHRIST HOSP MED RES INST, CINCINNATI OH 45219
MILESTONES...: 01/80 -DATA ON NUMBER OF VIRAL UNITS REQUIRED TO INFECT YOUNG ADULTS
PROGRAM ID...: (PE-C27) HEALTH EFFECTS - WATER QUALITY
FINAL OUTPUT.: DATA ON NUMBER OF VIRAL UNITS REQUIRED TO INFECT YOUNG ADULTS.
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-15 SAFE DRINKING WATER ACT
20-12 DAA FOR WATER PROGRAM OPERATIONS
20-13 DAA FOR DRINKING WATER
CURR. RESULTS: PRELIMINARY RESULTS INDICATE THAT AS FEW AS 10 PFU OF ECHOVIRUS 12 CAN CAUSE INFECTION IN A SIGNIFICANT PERCENTAGE OF EXPOSED AND SUSCEPTIBLE MALE ADULTS.
ORDIS CODES..: RECN-004752 SSIE-GMA 5771 1 EPA -R806173 ORD -RD10B30-5080
LABN-D607A-017A PE -C27
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO DETERMINE THE MIMINAL INFECTIOUS DOSE OF ECHOVIRUS 12 IN DRINKING WATER IN SUSCEPTIBLE ADULT MALE VOLUNTEERS. APPROACH: TO INOCULATE VOLUNTEERS WITH VARYING DOSES OF ECHOVIRUS 12 SUSPENDED IN DRINKING WATER AND FOLLOW THE VOLUNTEERS FOR EVIDENCE OF INFECTION (VIRAL SHEDDING AND ANTIBODY RESPONSE) AND/OR ILLNESS.

*PROJECT: 005209-STUDIES ON DROPLET ELECTRIFICATION IN RELATION TO LIQUID CHROMATOGRAPHIC DETECTION
TASK =GC12 -000521 **EPA=R806175 ** (GRANT)
STARTING/ COMPLETION DATE : 00/79 - 06/80 : FY80

EPA OFFICER.: JD MULIK EPA/ESRL - RTP FTS 8-629-3064
INVESTIGATOR.: BY LIU UNIV OF MINNESOTA DEPT OF MECH ENG
MILESTONES...: 06/80 -FINAL REPORT ON INITIAL PROGRAM (2-YEARS)
PROGRAM ID...: (PE-C12) * NO TEXT FOUND **
MANDATE......: 10-02 CLEAN AIR ACT
10-10 ENVIRONMENTAL RD&D AUTHORIZATION ACT
CURR. RESULTS: PRELIMINARY EXPERIEMENTS SHOW THAT DROPLET ELECTRIFICATION WILL PROBABLY WORK AS POTENTIAL HPLC DETECTOR ANDA A NEW SYSTEM DESIGNED AND CONSTRUCTED AND TO BE EVALUATED.
ORDIS CODES..: RECN-005209 SSIE-GMA 6119 1 EPA -R806175 ORD -RG10B30-1080
LABN-G762B-DB-010 PE -C12
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DETERMINE FEASIBILITY OF DEVELOPING NEW HIGH-PRESSURE LIQUID CHROMATOGRAPHIC (HPLC) DETECTOR BASED ON DROPLET ELECTRIFICATION. APPROACH: A TWO-YEAR PROGRAM IS PROPOSED WITH THE MAIN EMPHASIS DURING THE 1ST YEAR ON DEMONSTRATING FEASIBILITY OF THE CONCEPT.

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*PROJECT: 005051-AN INVESTIGATION OF BENTHIC AND FISH COMMUNITIES OF STOTTS AND EAGLE
                 CREEKS AS RELATED TO MIP
                   TASK =M820 -000010 **EPA=R806184-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/78 - 08/81 :   FY79
  EPA  OFFICER.: JN GAKSTATTER          EPA/ERL - CORVALLIS             503-757-4611
  INVESTIGATOR.: J  GAMMON              DE PAUL UNIV                    SCH OF LIBERAL ARTS
  MILESTONES...: 09/79 -ANNUAL REPORT
                 09/80 -ANNUAL REPORT
                 09/81 -FINAL REPORT
  PROGRAM ID...: (PE-820 )          FRESHWATER ECO EFFECTS  - WATER QUALITY
  FINAL OUTPUT..: REPORT EVAL. CHANGE IN STREAM COMMUNITIES.
  MANDATE......: 20-R05    EPA REGION V
  ORDIS CODES..: RECN-005051          SSIE-GMA  6077       EPA -R806184-01       ORD -RM10B30-1080
                 PE  -820
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: ESTABLISH BASELINE BIOLOGICAL CONDITION AND TO EVALUATE THE EFFECT OF NON-POINT SOURCE
                   POLLUTION CONTROLS ON FRESHWATER FISH AND BENTHIC INVERTEBRATE POPULATIONS. FINAL OUTPUT: REPORT
                   THAT WILL EVALUATE THE CHANGE IN STREAM COMMUNITIES RESULTING FROM BEST MANAGEMENT PRACTICES
                   IMPLEMENTATION AND SUBSEQUENT REDUCTION IN NONPOINT SOURCE POLLUTION.


*PROJECT: 005063-DEFINITION OF CHESAPEAKE BAY PROBLEMS OF EXCESSIVE ENRICHMENT OR
                 EUTROPHICATION
                   TASK =QC29 -000141 **EPA=R806189      ** (GRANT)
                   STARTING/ COMPLETION DATE : 10/78 - 10/80 :   FY80
  EPA  OFFICER.: T  PHEIFFER            EPA/ERL -GULF BREEZE            FTS-8-922-3912
  INVESTIGATOR.: E  CRONIN              CHES RES CONSORTIUM INC      C  ANNAPOLIS              MD 21403
                 BJ NEILSON             PHYS SCI & OCEAN ENG            GLOUCESTER POINT       VA 23062
                 D  HEINLE              UNIV OF MARYLAND                DEPT OF BOTANY
  MILESTONES...: 10/78 -PROJECT INITIATION
                 10/80 -REPORT
  PROGRAM ID...: (PE-C29 )          CHESAPEAKE BAY STUDY
  MANDATE......: 20-60     AA FOR RESEARCH AND DEVELOPMENT
                 20-R03    EPA REGION III
                 30-99     ESTUARINE
  ORDIS CODES..: RECN-005063          SSIE-GMA  5894 1     EPA -R806189          ORD -RQ10B30-5080
                 LABN-0771 -0141      PE  -C29
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO PROVIDE A FUNDAMENTAL UNDERSTANDING OF EUTROPHICATION AS RELATED TO CHESAPEAKE BAY
                   SPECIFICALLY AND TO ESTUARIES GENERALLY; TO DEFINE THE DIMENSIONS OF THE EUTROPHICATION PROBLEM IN
                   CHESAPEAKE BAY; TO ADOPT OR DEVELOP AN INDEX (OR INDICES) THAT QUANTITATIVELY DESCRIBE THE TROPHIC
                   STATE OF ESTUARINE WATERS; TO RELATE LEVELS OF NUTRIENT ENRICHMENT IN ESTUARIES TO THE HEALTH AND
                   PRODUCTIVITY OF THOSE SYSTEMS; AND TO DEFINE THE NEEDS FOR FUTURE RESEARCH AND MONITORING OF
                   CONDITIONS IN THE CHESAPEAKE BAY. APPROACH: THE OBJECTIVES WILL BE SOUGHT THROUGH DEFINITIVE
                   SUMMARY OF KNOWLEDGE ABOUT ESTUARINE ENRICHMENT, THOROUGH ASSESSMENT OF ALL PERTINENT DATA ON PAST
                   AND PRESENT ENRICHMENT OF CHESAPEAKE BAY, DEVELOPMENT AND TESTING THE MOST APPROPRIATE AND USEFUL
                   INDEX OF ESTUARINE ENRICHMENT AND ESTIMATING THE RELATIONSHIPS BETWEEN ENRICHMENT AND THE USES OF
                   ESTUARIES. SUBSTANTIAL USE WILL BE MADE OF CONSENSUS TECHNIQUES, INCLUDING THE DELPHI METHOD, AND
                   OF A NATIONAL WORKSHOP AND INTERNATIONAL SYMPOSIUM ON ESTUARINE ENRICHMENT.
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*PROJECT: 005346-SEDIMENTATION AND PRODUCTIVITY OF SALMONID STREAMS

                 TASK =M820 -000022 **EPA=R806195-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 10/79 - 07/82 :   FY79
  EPA  OFFICER.: JN GAKSTATTER          EPA/ERL - CORVALLIS          503-757-4611
  INVESTIGATOR.: TC BJORNN              UNIV OF IDAHO                MOSCOW          ID 83843
                 JH MILLIGAN            UNIV OF IDAHO                MOSCOW          ID 83843
                 M  BRUSVEN             UNIV OF IDAHO                MOSCOW          ID 83843
  MILESTONES...: 10/79 -STATE OF THE ART REPORT ON GRANITIC SEDIMENTS AND SALMONID PRODUCTION
                 07/82 -FINAL REPORT WITH JOURNAL PUBLICATIONS
  PROGRAM ID...: (PE-820 )         FRESHWATER ECO EFFECTS  - WATER QUALITY
  FINAL OUTPUT.: FINAL REPORT WITH JOURNAL PUBLICATIONS
  MANDATE......: 10-14     NATIONAL ENVIRONMENTAL POLICY ACT
  CURR. RESULTS: DRAFT REPORT UNDER REVIEW BY PROJECT OFFICER.
  ORDIS CODES..: RECN-005346         SSIE-GMA  6350        EPA -R806195-01      ORD -RM10B30-1079
                 PE  -820
  PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL         ENTERED - UNKNOWN    UPDATED-  JAN-MAR 80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: 1 - CONDUCT FIELD AND LABORATORY STUDIES IN STREAMS TO FURTHER DEFINE THE RELATION
                  BETWEEN DEGREE OF SEDIMENTATION, AQUATIC INVERTEBRATE ABUNDANCE, AND FISH PRODUCTION. 2 - CONDUCT
                  FIELD AND LABORATORY STUDIES TO DETERMINE IF RIFFLE AREAS CAN BE USED AS INDEX AREAS TO MONITOR
                  SEDIMENT HEALTH OF STREAMS. APPROACH: STUDY THE EFFECTS OF SEDIMENTATION ON DIURNAL ABUNDANCE OF
                  INSECT DRIFT AS FISH FOOD BOTH IN THE LABORATORY AND NATURAL STREAMS. SAMPLES WILL BE TAKEN
                  CRITICAL TIMES UNDER DIFFERENT SEDIMENTATION LEVELS. THESE RESULTS WILL BE EVALUATED WITH FISH
                  GROWTH AND ABUNDANCE DATA. THE PERCENTAGE OF FINE SEDIMENTS IN RIFFLES WILL BE MEASURED AND
                  COMPOSITION OF THE SUBSTRATE SURFACE CLASSIFIED. PHOTO TRANSECTS WILL ALSO BE USED TO ILLUSTRATE
                  SEDIMENT DEPOSITS IN VARIOUS TYPES OF HABITATS AND STREAMS. OTHER PHYSICAL AND BIOLOGICAL
                  MEASUREMENTS WILL BE EVALUATED TO DETERMINE THE "GOODNESS" OF, OR HEALTH OF THE STREAM.
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•PROJECT: 005014-MICROBIAL CONVERSION OF DELETERIOUS MOLECULES - KINETIC MODELS FOR AQUATIC ENVIRONMENTS
TASK =KC61 -000213 ••EPA=R806208 •• (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 10/81 : FY80

EPA OFFICER.: DF PARIS EPA/ERL - ATHENS FTS 8-250-3469
INVESTIGATOR.: DF OLLIS PRINCETON UNIV AEROSPACE DEPT
MILESTONES...: 09/79 -INTERIM REPORT
09/80 -INTERIM REPORT
09/81 -FINAL REPORT ON KINETIC MODEL FOR MICROBIAL CONVERSION OF TOXICS
PROGRAM ID...: (PE-C61) DRINK WATER TREATMENT & GROUND WATER PROT
MANDATE......: 30-99 BIOCHEMICAL ENGINEERING
CURR. RESULTS: NECESSARY EQUIPMENT OBTAINED. LAB STUDIES BEGUN IN APRIL.
LITERATURE REVIEW ON BIODEGRADATION KINETICS IN PROGRESS.
KINETIC MODELS FOR POLLUTANT CONVERSION BY MICROBIAL BIOMASS HAVE BEEN EXTENDED TO INCLUDE POLLUTANT INHIBITION AND EVAL.
ORDIS CODES..: RECN-005014 SSIE-GMA 6063 1 EPA -R806208 ORD -RK10B30-3080
PE -C61
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THE OBJECTIVE OF THIS PROJECT IS TO DEVELOP A SIMPLE BUT GENERAL KINETIC FRAMEWORK WHICH DESCRIBES MICROBIAL DEGRADATION TRACE DELETERIOUS MOLECULES WHEN INTRODUCED INTO OTHERWISE "NORMAL" AQUATIC ENVIRONMENTS. CHEMOSTAT OPERATION AT LOW DILUTION RATES USING NATURAL, UNENRICHED MIXED POPULATIONS WILL PROVIDE DATA FOR DETERMINING KINETIC MODEL PARAMETERS. TRACE QUANTITIES OF MOLECULES TYPIFYING VARIOUS POLLUTANT MOLECULES (E.G., PHENOLS, PESTICIDES, ETC.) WILL BE INTRODUCED IN A STERILE FEED TO MULTIPLE CHEMOSTAT ARRANGEMENTS. THE MODEL DEVELOPED WILL INCLUDE ACCOUNTING FOR THE MAJOR PHENOMENA REPORTED TO DATE IN THE LITERATURE.

•PROJECT: 006303-POTENTIAL ENVIRONMENTAL HAZARDS OF PESTICIDAL VIRUSES

TASK =H615 -944600 •-EPA=R806210 •• (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 09/81 : FY79

EPA OFFICER.: CY KAWANISHI EPA/HERL - RTP FTS 8-629-2693
INVESTIGATOR.: UNKNOWN UNIV OF NORTH CAROLINA CHAPEL HILL NC 27514
MILESTONES...: 09/80 -RESTRIC ENZYME ANALYSES OF PURIFIED DNA
09/79 -PRELIM. DNA-DNA REASSOCIATION KINETICS
09/80 -PRE. ANTISERA TO PROTEINS OF BACULOVIRUSES
09/80 -MNPV TRANSFECTION IN MOUSE EMBRYO
PROGRAM ID...: (PE-615) HEALTH EFFECTS - PESTICIDES
MANDATE......: 20-34 DAA FOR PESTICIDE PROGRAMS
ORDIS CODES..: RECN-006303 SSIE-HZ 799446 EPA -R806210 ORD -RH10B30-2079
LABN-H615 -944600 PE -615
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: ¢1! DETECTION & EXAMINATION OF ANY BIOLOGICAL & BIOCHEMICAL EFFECTS OF PESTICIDAL VIRUS ON HUMAN & OTHER MAMMALIAN CELLS IN IN VITRO TISSUE CULTURE SYSTEM ¢2! OBSERVATION & COMPARISON OF VIRAL GENE EXPRESSION & GENE AMPLIFICATION IN PERMISSIVE & NONPERMISSIVE INFECTION SYSTEMS (3) STUDY OF GENETIC RELATEDNESS OF VARIOUS PESTICIDAL VIRUSES THE RADIOACTIVE CRNA HYBRIDIZATION TECHNIQUE FOR DETECTION OF THE DNA OF SFMNPV BACULOVIRUS IN TRANSFECTED CELLS WAS DEVELOPED AND STANDARDIZED. THE CALCIUM PHOSPHATE AND 20 PERCENT DMSO TRANSFECTION PROCEDURE WAS ALSO OPTIMIZED AND STANDARDIZED FOR SFMNPV DNA BY USING HUMAN CYTOMEGALOVIRUS AS A STANDARD IN WI38 HUMAN CELLS. THE PROCEDURE WAS ALSO STANDARDIZED FOR THE INSECT IPLB21AE CELLS. STUDIES OF SFMNPV TRANSFECTED MOUSE EMBRYOS ARE BEING REPEATED. BGL II RESTRICTION ENZYME PATTERNS OF SFMNPV VIRIONS OF DIFFERING SEDIMENTATION COEFFICIENTS WAS SHOWN TO BE DIFFERENT.

148.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R-806212-02

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Development of a Carcinogen System Utilizing Estuarine Fishes

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

B.J. Martin, Assoc. Professor, Dept. of Biology, Principal Investigator
B.L. Middlebrooks, Assoc. Prof., Dept. of Micro., Co-Investigator
R.D. Ellender, Assoc. Prof., Dept. of Micro., Co-Investigator

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Southern Mississippi
Hattiesburg, Mississippi 39401

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The objective of this proposal is the procurement of funds needed to develop a carcinogen assay system that employs estuarine fish maintained in a controlled environment. Fish will be exposed to three different environmental pollutants known to be human carcinogens. The total effect of the carcinogens will be studied. Effects on gross morphology will be observed and histological, cytochemical, biochemical, immunologic, and tissue culture techniques will be employed. An important goal will be the detection of pre-neoplastic lesions that might be used as an "early warning" detection system for carcinogens in the aquatic environment.

148.2

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE R-806213-02

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT "Metabolism of Polyaromatic Hydrocarbons by the Mixed Function Oxidases of Marine Organisms"

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Paul Melius, Principal Investigator
Dr. Barrie Tan, Post-doctoral Research Associate

NAME AND ADDRESS OF APPLICANT INSTITUTION

Auburn University
Auburn, Alabama 36830

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

An investigation is being carried out into the metabolism of polyaromatic hydrocarbon metabolism in Mugil cephalus and Fundalus grandis. We wish to identify the pathway of conversion of the parent compounds to various hydroxylated products and the relative mutagenic products formed.

*PROJECT: 006626-POTENTIAL ENVIRONMENTAL HAZARDS OF PESTICIDAL VIRUSES

TASK =HC86 -944600 **EPA=R806210 ** (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 09/81 : FY80

EPA OFFICER.: CY KAWANISHI EPA/HERL - RTP FTS 8-629-2693
INVESTIGATOR.: HUANG E. UNIV OF NORTH CAROLINA CHAPEL HILL NC 27514
MILESTONES...: 09/80 -RESTRIC ENZYME ANALYSES OF PURIFIED DNA
09/79 -PRELIM. DNA-DNA REASSOCIATION KINETICS
09/80 -PRE. ANTISERA TO PROTEINS OF BACULOVIRUSES
09/80 -MNPV TRANSFECTION IN MOUSE EMBRYO
PROGRAM ID....: (PE-C86) HEALTH EFFECTS - PESTICIDES
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
ORDIS CODES..: RECN-006626 SSIE-HZ 809446 EPA -R806210 ORD -RH10B30-1080
PE -C86
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: ¢1! DETECTION & EXAMINATION OF ANY BIOLOGICAL & BIOCHEMICAL EFFECTS OF PESTICIDAL VIRUS ON HUMAN & OTHER MAMMALIAN CELLS IN IN VITRO TISSUE CULTURE SYSTEM ¢2! OBSERVATION & COMPARISON OF VIRAL GENE EXPRESSION & GENE AMPLIFICATION IN PERMISSIVE & NONPERMISSIVE INFECTION SYSTEMS (3) STUDY OF GENETIC RELATEDNESS OF VARIOUS PESTICIDAL VIRUSES TO CARRY OUT STUDIES TO DETERMINE THE ABILITY OF BACULOVIRUSES TO INFECT HUMAN WI38 CELL CULTURES AND MOUSE BLASTOCYSTS. THE DNA OF THE VIRUS SFMNPV WAS EXAMINED FOR CONFIGURATIONAL INTACTNESS AND ITS MOLECULAR WEIGHT MEASURED. ONE THIRD OF ALL THE DNA WERE CIRCULAR. THE MOLECULAR WEIGHT WAS FOUND TO BE IN THE RANGE OF 82 TO 87 MILLION DALTONS. ALKALINE DENATURATION OF THE DNA SHOWED 3 CLUSTRES OF PARTIALLY DENATURATED REGIONS WHICH CAN NOW BE USED AS REFERENCE POINTS IN GENETIC STUDIES.

*PROJECT: 005355-ASSESSMENT OF ENERGY-RELATED TOXICANT STRESS IN AN ENGINEERED ECOSYSTEM

TASK =N831 -000013 **EPA=R806214-01 ** (GRANT)
STARTING/ COMPLETION DATE : 10/78 - 03/81 : FY79

EPA OFFICER.: TH ROUSH EPA/ERL - DULUTH FTS 8-783-9520
INVESTIGATOR.: RH BOLING MICHIGAN STATE UNIV ZOOLOGY DEPT
MILESTONES...: 03/80 -REPORT ON FIRST YEAR OF TESTING
03/81 -REPORT ON SECOND YEAR OF TESTING
PROGRAM ID...: (PE-831) EFFECTS OF ENERGY REL POLLUTANTS
MANDATE......: 30-99 AQUATIC TOXICOLOGY
CURR. RESULTS: THE ENGINEERING HARDWARE HAS BEEN INSTALLED, THE BASELINE SAMPLING AND ANALYSIS CONDUCTED, AND THE FIRST SEASON OF TOXICANT INTRODUCTION AND MONITORING HAS BEEN CONDUCTED.
ORDIS CODES..: RECN-005355 SSIE-GMA 6337 EPA -R806214-01 ORD -RN10B30-3079
PE -831
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO DETERMINE THE ENVIRONMENTAL PARAMETERS TO MEASURE TO BETTER ASSESS THE EFFECTS OF A TOXICANT ON AN AQUATIC ECOSYSTEM. APPROACH: THE ECOSYSTEM IS HELD IN A DESIRABLE RANGE BY MANIPULATION OF PHYSICAL VARIABLES. A TOXICANT IS INTRODUCED AND THE EFFECT ON THE BIOLOGICAL COMMUNITIES IS DETERMINED.

*PROJECT: 005686-LITHIUM - EPIDEMIOLOGICAL ASSESSMENT OF CHRONIC EXPOSURE

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                TASK =DC60 -2H0001 **EPA=R806219-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 05/79 - 10/80 :   FY80
EPA  OFFICER.: RK MIDAY                 EPA/HERL - CINC                 FTS 8-684-7461
INVESTIGATOR.: RE FERRELL               UNIV OF TEXAS                   GRADUATE SCH OF BIOMED
MILESTONES...: 01/80 -PROGRESS REPORT OF INITIAL SAMPLING RESULTS
               10/80 -FINAL ANALYSIS OF BODY BURDEN DATA
               10/80 -DETERMINATION OF LITHIUM BODY BURDENS
PROGRAM ID...: (PE-C60 )          HEALTH EFFECTS  - DRINKING WATER
FINAL OUTPUT.: DETERMINATION OF LITHIUM BODY BURDENS
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
               20-13     DAA FOR DRINKING WATER
ORDIS CODES..: RECN-005686        SSIE-GMA  6688      EPA -R806219-01      ORD -RD10B30-5080
               PE  -C60
PROJ STATUS..: PROJECT-ACTIVE     INFO-ORIGINAL       ENTERED - 06-28-80   UPDATED-  06-28-80
               CATEGORY-RESEARCH  ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS PROPOSAL ARE TO DESCRIBE THE CONCENTRATIONS OF LITHIUM IN DRINKING WATER AND LOCALLY DERIVED FOODS IN TWO GEOGRAPHIC AREAS, TO DETERMINE BODY BURDENS OF LITHIUM IN THE RESPECTIVE POPULATIONS AND TO IDENTIFY AREAS AND POPULATIONS WHERE EPIDEMIOLOGIC STUDIES COULD BE INITIATED TO INVESTIGATE POTENTIAL ADVERSE HEALTH EFFECTS FROM LITHIUM EXPOSURE. APPROACH: THE TWO AREAS TO BE STUDIED ARE NORTHERN CHILE AND SOUTH TEXAS. REPRESENTATIVE SAMPLINGS OF WATER, MILK AND FOODS IN THESE AREAS WILL BE TAKEN AND LITHIUM LEVELS MEASURED. IN ADDITION, LITHIUM LEVELS IN RESIDENTS' URINE AND SERUM WILL BE MEASURED.

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NOTICE OF RESEARCH PROJECT

PROJECT NO. *(Do not use this space)*

SSIE

EPA R-806224-02-0

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT The Utilization of Indigenous Populations of Bivalve Mollusks for Monitoring, Surveillance and Assessing the Public Health Significance of Polycycli

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Michael C. Mix
Department of General Science
Associate Professor of Biology

NAME AND ADDRESS OF APPLICANT INSTITUTION

Department of General Science, Oregon State University,
Corvallis, Oregon 97331

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

(1) Objectives: To expand the data base on background levels of carcinogenic polynuclear aromatic hydrocarbons (PNAH) in indigenous populations of bivalve mollusks; to determine whether or not cellular proliferative disorders occur in shellfish populations in Oregon bays. Other than Yaquina Bay; to determine if there are correlations between PNAH body burdens and the incidence of cellular disorders in shellfish populations; to identify sources of environmental PNAH using HPLC and neutron activation analysis fingerprinting methods; to measure baseline levels of PNAH in other economically-important marine species from different Oregon bays.

(2) Approach: Shellfish are collected from specific sites in Tillamook, Yaquina and Coos Bays, processed and assayed for carcinogenic PNAH using NPLC; bivalve mollusks from other bays are also collected, processed and examined histologically to determine if they have cellular proliferative disorders.

(3) Progress: Samples have been collected bimonthly from the three primary bays since October, 1979, and are being analyzed for PNAH at the present time; shellfish from Coos Bay do not appear to have cellular proliferative disorders.

•PROJECT: 004743-EFFECT OF PARTICULATES OF DISINFECTION OF ENTEROVIRUSES IN WATER BY CHLORAMINES

TASK =CC61 -S2T051 ••EPA=R806240-02 •• (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 11/80 : FY80

EPA OFFICER.: JC HOFF EPA/MERL - CINC 513-684-7331
INVESTIGATOR.: PV SCARPINO UNIV OF CINCINNATI SCH OF ENG/ELEC ENG TECH
MILESTONES...: 10/79 -ANNUAL REPORT
08/80 -PROJECT COMPLETED
11/80 -EPA REPORT PUBLISHED
PROGRAM ID...: (PE-C61) DRINK WATER TREATMENT & GROUND WATER PROT
MANDATE......: 20-13 DAA FOR DRINKING WATER
CURR. RESULTS: BASELINE DATA ON EFFICIENCY OF PREFORMED CHLORAMINES CONFIRM PREVIOUS RESULTS INDICATING THAT CHLORAMINES ARE VERY WEAK BIOCIDES. PRELIMINARY EXPERIMENTS ON CHLORINE AND AMMONIA ADDITION SEQUENCES IN SHOW NO . INACTINATION ENHANCEMENT DUE TO BREAKING RESIDUALS RESULTS OF EXPERIMENT ON CHLORINE AND AMMONIA ADDITION SEQUENCES SHOW NO ENHANCEMENT OF BIOCIDAL EFFICIENCY BY BREAKING RESIDUALS
ORDIS CODES..: RECN-004743 SSIE-GMA 5572 2 EPA -R806240-02 ORD -RC10B30-2090
PE -C61
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DETERMINE THE EFFECTS OF MICROBIAL ASSOCIATION WITH PARTICULATES ON INACTIVATION OF MICROORGANISMS BY CHLORAMINES INCLUDING THE EFFICIENCY OF "BREAKING" CHLORINE RESIDUALS. APPROACH: INACTIVATION RATES OF ENTERIC VIRUSES AND BACTERIA ASSOCIATED WITH VARIOUS TYPES OF PARTICULATE MATTER WILL BE COMPARED WITH INACTIVATION RATES OF FREELY SUSPENDED MICROORGANISMS. DIFFERENT SEQUENCES OF MIXING FREE CHLORINE AND AMMONIA WILL BE USED TO DETERMINE EFFICIENCY OF "BREAKING" RESIDUALS.

•PROJECT: 005348-TEMPORAL VARIABILITY IN STREAM ECOSYSTEMS

TASK =M820 -000024 ••EPA=R806255-01 •• (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 09/79 : FY79

EPA OFFICER.: DH LEWIS EPA/ERL - CORVALLIS 503-757-4754
INVESTIGATOR.: J VAN SICKLE OREGON STATE UNIV ELEC & COMP ENG DEPT
MILESTONES...: 09/79 -CORRELATION OF STORM EVENT CHARACTERIZATIONS
PROGRAM ID...: (PE-820) FRESHWATER ECO EFFECTS - WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-R10 EPA REGION X
CURR. RESULTS: TECHNIQUE FOR HANDLING INDIVIDUAL STORM EVENTS DEVELOPED.
ORDIS CODES..: RECN-005348 SSIE-GMA 6357 EPA -R806255-01 ORD -RM10B30-5079
PE -820
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: HELP QUANTIFY THE VARIABILITY THROUGH TIME OF STREAM FLOW AND SEDIMENT TRANSPORT IN SMALL WESTERN MOUNTAIN STREAMS. SPECIFIC OBJECTIVE IS TO SURVEY AVAILABLE STREAM FLOW RECORDS FOR FIRST TO FIFTH ORDER MOUNTAIN STREAMS. APPROACH: USE TIME SERIES TECHNIQUES TO ANALYZE STREAM FLOW RECORDS AND BUILD SIMPLE STOCHASTIC FLOW MODELS; BUILD SIMPLE BUDGET MODELS OF SEDIMENT STORAGE AND TRANSPORT WHICH USE THE STOCHASTIC FLOW MODELS AS FORCING FUNCTIONS, AND GENERATE SYNTHETIC TIME SERIES TO TEST SAMPLING SCHEMES.

*PROJECT: 004420-REMOVAL OF TRACE ORGANIC COMPOUNDS BY BIOLOGICALLY ACTIVATED CARBON

TASK =CC61 -01T051 **EPA=R806256 ** (GRANT)
STARTING/ COMPLETION DATE : 00/79 - 08/81 : FY80

EPA OFFICER.:	JK CARSWELL	EPA/MERL - CINC	FTS 8-684-7228	
INVESTIGATOR.:	CF GUARINO	PHILA. WATER DEPARTMENT	PHILADELPHIA	PA 19107
	PR CAIRO	PHILA. WATER DEPARTMENT	PHILADELPHIA	PA 19107
	IH SUFFET	DREXEL UNIV	PHILADELPHIA	PA 19104

PROGRAM ID...: (PE-C61) DRINK WATER TREATMENT & GROUND WATER PROT
MANDATE......: 10-15 SAFE DRINKING WATER ACT
ORDIS CODES..: RECN-004420 SSIE-GMA 5669 1 EPA -R806256 ORD -RC10B30-1080
PE -C61
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: NATIONAL CONCERN IS FOCUSED ON THE PRESENCE OF TRACE ORGANIC CHEMICALS IN SURFACE WATER SUPPLIES AND THEIR POTENTIAL HEALTH IMPACTS ON PUBLIC DRINKING WATER. THE ENVIRONMENTAL PROTECTION AGENCY HAS DETERMINED THAT GRANULAR ACTIVATED CARBON (GAC) IS THE BEST AVAILABLE TREATMENT TECHNOLOGY TO DATE FOR TREATING WATER TO REMOVE A "BROAD SPECTRUM" OF ORGANIC CONTAMINANTS. ACTIVE LIFE OF GAC, HOWEVER, IS SOMEWHAT LIMITED AND THE NEED FOR FREQUENT REGENERATION WITH THE ASSOCIATED LOSS OF CARBON IS ONE OF THE SIGNIFICANT COST BURDENS OF THE PROCESS. FOR THIS REASON ALTERNATIVE METHODS OF ORGANIC REMOVAL ARE CURRENTLY UNDER INVESTIGATION. APPROACH: THIS PROPOSAL RESEARCHES A PROMISING TREATMENT PROCESS WHICH COMBINES OXIDATION OF MACROMOLECULES OF ORGANICS BY OZONATION FOLLOWED BY ADSORPTION AND DECOMPOSITION OF THESE ORGANICS BY BIOLOGICALLY ENHANCED GRANULAR ACTIVATED CARBON. THE COMBINED PROCESS CALLED BIOLOGICALLY ACTIVATED CARBON (BAC) HAS SHOWN PROMISE IN EUROPEAN PLANTS WHEN EVALUATED BY SURROGATE ORGANIC MEASUREMENTS. THE PROPOSED RESEARCH CONSISTS OF BENCH SCALE AND PILOT SCALE STUDIES TO DEMONSTRATE THE EFFECTIVENESS OF BAC IN REMOVING TRACE ORGANICS OF HEALTH CONCERN IN THE UNITED STATES. AN ECONOMIC ANALYSIS WILL BE CONDUCTED TO EVALUATE THE COST EFFECTIVENESS OF BAC AS COMPARED TO CONVENTIONAL GAC TREATMENT.

•PROJECT: 004782-RECOVERY OF ASBESTOS FIBERS FROM BABOON TISSUES

TASK =D823B-040C00 ••EPA=R806256-01 •• (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 04/80 : FY79

EPA OFFICER.: JR MILLETTE EPA/HERL - CINC 513-684-7462
INVESTIGATOR.: WH HALLENBECK UNIV OF ILLINOIS MED CTR/ENV HLTH SCI
MILESTONES...: 10/79 -REPORT OF FINDINGS
04/80 -UNDERSTANDING OF HOW INGESTED ASBESTOS MOVES TO THE URINE
PROGRAM ID...: (PE-823) HEALTH EFFECTS -DRINKING WATER
FINAL OUTPUT.: UNDERSTANDING OF HOW INGESTED ASBESTOS MOVES TO THE URINE.
MANDATE......: 10-15 SAFE DRINKING WATER ACT
CURR. RESULTS: METHOD FOR BLOOD ANALYSIS DEVELOPED. ANIMALS EXPOSED AND SACRIFICED. URINE ANALYSES FINISHED.
ORDIS CODES..: RECN-004782 SSIE-GMA 5779 EPA -R806256-01 ORD -RD10830-1079
PE -823
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: TO DETERMINE FIBER SIZE AND DISTRIBUTION OF INGESTED ASBESTOS FIBERS IN LUNG, URINE, AND TISSUES WHICH SHOW THE MIGRATORY PATHWAY OF FIBERS THROUGH THE BODY. APPROACH: JUVENILE BABOONS WILL BE USED FOR CONTROL AND TEST. A CONCENTRATED SUSPENSION OF CHRYSOTILE AND AMPHIBOLE ASBESTOS OF THE TYPES FOUND IN DRINKING WATER WILL BE USED. COLLECTION OF URINE AND BLOOD WILL BE FOLLOWED BY SACRIFICING OF THE ANIMALS. THE FOLLOWING TISSUES WILL BE EXAMINED FOR THE PRESENCE OF FIBERS: URINE, BLOOD, LUNG, PLEURA, URINARY BLADDER, PANCREAS, PERITONEUM.

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*PROJECT: 001848-SCAVENGING OF GASES AND AEROSOL PARTICLES BY CLOUDS AND PRECIPITATION IN
                  THE ATMOSPHERE
                   TASK =GC1M -000513 **EPA=R806257-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 07/78 - 10/81 :   FY80
  EPA  OFFICER.: HJ VIEBROCK               EPA/ESRL - RTP                    FTS 8-629-4543
  INVESTIGATOR.: HR PRUPPACHER             UNIV OF CALIFORNIA                SCH OF LETTERS & SCIENCE
  MILESTONES...: 10/79 -PROGRESS REPORT ON SCAVENGING BY ICE CRYSTALS
                 10/80 -PROGRESS REPORT ON SCAVENGING OF GASES BY DISTILLED WATER DROPS EXPERIMENT
                 10/81 -FINAL REPORT ON SCAVENGING OF GASES BY CLOUDS AND PRECIPITATION
                 10/81 -MODEL OF SCAVENGING OF GASES BY PRECIPITATION
  PROGRAM ID...: (PE-C1M )            ANTICIPATORY  - INTERDISCIPLINARY
  FINAL OUTPUT.: MODEL OF SCAVENGING GASES BY PRECIPITATION
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: THEORETICAL MODELS HAVE BEEN DEVELOPED FOR THE
                 SCAVENGING OF GASES BY CLOUD AND RAINDROPS, AND
                 FOR THE SCAVENGING OF AEROSOLS BY ICE CRYSTALS. TESTING
                 HAS BEGUN OF THE ICE CRYSTAL SCAVENGING MODEL
                 AND PRELIMINARY RESULTS ARE FAVORABLE.
  ORDIS CODES..: RECN-001848           SSIE-GMA  5176 2      EPA -R806257-01       ORD -RG10B31-1080
                 LABN-G603A-AE-028     PE  -C1M
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVES: THEORETICAL MODELS WILL BE DEVELOPED TO DESCRIBE THE SCAVENGING OF POLLUTANT AEROSOLS
                  AND GASES BY CLOUD AND PRECIPITATION ELEMENTS.APPROACH: THE MATHEMATICAL MODELS WILL BE
                  EXPERIMENTALLY EVALUATED USING THE UCLA RAINSHAFT AND CLOUD TUNNEL. THE RAINSHAFT WILL BE MODIFIED
                  FOR USE WITH POLLUTANT GASES.
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•PROJECT: 000583-WATER CONSERVATION AND THE DROUGHT

TASK =CC35 -04T017 **EPA=R806262-01 ** (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 05/80 : FY80

EPA OFFICER..:	JN ENGLISH	EPA/MERL - CINC	513-684-7613	
INVESTIGATOR.:	JS KOYASAKO	STATE DEPT OF WAT RES	SACRAMENTO	CA 95802

MILESTONES...: 05/80 -FINAL REPORT PUBLISHED 11-80
PROGRAM ID...: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-R09 EPA REGION IX

CURR. RESULTS: TREND OF DECREASED ENERGY USE FOR SEWER SYSTEM WITH REDUCTION IN WASTEWATER FLOW APPEARS TO BE DEVELOPING. NO APPARENT DEVELOPING OF SIMILAR TREND FOR ENERGY OR CHEMICAL USES FOR TREATMENT PLANTS.
DRAFT FINAL REPORT COMPLETED AND REVIEWED 3/80.

ORDIS CODES..:	RECN-000583	SSIE-GMA 5110 2	EPA -R806262-01	ORD -RC10B30-5080
	LABN-C822B-04T17	PE -C35		
PROJ STATUS..:	ACTIVE -MULTIYEAR	INFO-UPDATED	ENTERED - UNKNOWN	UPDATED- 06-28-80
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT.....: OBJECTIVE: OBJECTIVE IS TO FOCUS WATER RESOURCES PLANNING TOWARDS MORE EFFICIENT AND EFFECTIVE WATER MANAGEMENT PROGRAMS FOR BOTH DROUGHT AND NON-DROUGHT PERIODS. STUDY ACCOMPLISHMENTS WILL BE TO IDENTIFY THE IMPACTS OF IMPLEMENTED WATER CONSERVATION MEASURES, REPORT ON THE STATUS OF THESE CONSERVATION MEASURES AND ATTEMPT TO PREDICT LONG-TERM IMPACTS, IF ANY. APPROACH: A DIRECT PRODUCT OF THIS PROJECT WILL BE A REPORT WITH CONCLUSIONS OF PRESENT IMPACTS OF WATER CONSERVATION ON WATER SUPPLY AND WASTEWATER MANAGEMENT PRACTICES AND RECOMMENDATIONS ABOUT FUTURE IMPACTS, FURTHER ACTIONS AND POLICY DIRECTION. END PRODUCTS WILL BE DEVELOPMENT OF SIGNIFICANT INDICATORS ON IMPACTS TO FUTURE COSTS OF WATER SUPPLIES AND SIZE AND POTENTIAL REDUCTIONS OF TREATMENT PLANTS BROUGHT ABOUT BY DECREASED CAPACITY.

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*PROJECT: 004594-CHEMICAL STABILIZERS FOR THE CONTROL OF FUGITIVE ASBESTOS EMISSIONS FROM
              OPEN SOURCES
               TASK =B604B-000729 **EPA=R806269-01  ** (GRANT)
               STARTING/ COMPLETION DATE : 09/78 - 01/81 :    FY79
 EPA  OFFICER..: MK STINSON              EPA/IERL - CINC                 FTS 8-340-6683
 INVESTIGATOR..: PK ASE                   I I T RES INST                 CHICAGO                    IL 60616
                 K  GUTFREUND             I I T RES INST                 CHICAGO                    IL 60616
                 RY PURCELL               I I T RES INST                 CHICAGO                    I. 60616
                 N  RAJENDRAN             I I T RES INST                 CHICAGO                    IL 60616
                 D  WALIA                 I I T RES INST                 CHICAGO                    IL 60616
                 G  YAMATE                I I T RES INST                 CHICAGO                    IL 60616
                 E  LUEBCKE               I I T RES INST                 CHICAGO                    IL 60616
                 R  NORMAN                I I T RES INST                 CHICAGO                    IL 60616
 MILESTONES....: 08/79 -FINAL REPORT ON CHEMICAL STABILIZERS FOR ASBESTOS WASTE EMISSIONS
 PROGRAM ID....: (PE-604 )           INDUSTRIAL PROC. - AIR
 MANDATE.......: 10-02     CLEAN AIR ACT
                 20-11     DAA FOR WATER PLANNING AND STANDARDS
                 20-R02    EPA REGION II
                 20-R05    EPA REGION V
                 20-R10    EPA REGION X
                 30-99     STABLIZIATION
 CURR. RESULTS: SCREENING OF COMMERICAL CHEMICAL STABILIZERS
                HAS BEEN COMPLETED. THE WIND TUNNEL IS DESIGNED
                AND READY FOR MANUFACTURE.
 ORDIS CODES...: RECN-004594          SSIE-GMA  5912         EPA -R806269-01        ORD -RB10830-5079
                 PE  -604
 PROJ STATUS...: ACTIVE -MULTIYEAR     INFO-UPDATED           ENTERED - UNKNOWN      UPDATED-  JUL-SEP 79
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
 ABSTRACT......: OBJECTIVE: THE OBJECTIVE OF THIS PROJECT IS TO EVALUATE THE EFFECTIVENESS OF CHEMICAL STABILIZERS
                  FOR REDUCING ASBESTOS EMISSIONS FROM WASTE DUMPS AND FOR REDUCING ASBESTOS EMISSIONS FROM CRUSHED
                  ROCK PREPARED FROM ASBESTOS SERPENTINITE. APPROACH: SCREENING AND LABORATORY EVALUATION OF
                  COMMERCIAL STABILIZERS FOR FURTHER STUDY. WIND TUNNEL TESTS WILL ASSESS THE LEVELS OF ASBESTOS
                  EMISSIONS AFTER SAMPLES HAVE BEEN TREATED WITH THE CHEMICAL AND THEN SUBMITTED TO ACCELERATED
                  WEATHERING THROUGH MANY HEAT/COLD/RAIN CYCLES. EFFECTIVENESS OF CHEMICALS FOR FUGITIVE ASBESTOS
                  FIBER CONTROL FROM UNPAVED ROADS WILL BE ASSESSED IN A FIELD TEST CARRIED OUT ON A STRETCH OF A
                  SERPENTINITE ROCK SURFACED ROAD.
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•PROJECT: 005041-DEVELOPMENT OF A PROTOCOL FOR TESTING EFFECTS OF TOXIC SUBSTANCES ON PLANTS

TASK =M602 -000009 ••EPA=R806270-01 •• (GRANT)
STARTING/ COMPLETION DATE : 08/78 - 08/79 : FY79

EPA OFFICER.: DT TINGEY — EPA/ERL - CORVALLIS — FTS 8-420-4621
INVESTIGATOR.: CR THOMPSON — UNIV OF CALIFORNIA — GRADUATE SCHOOL
MILESTONES...: 08/80 -FINAL REPORT
PROGRAM ID...: (PE-602) ECOL. PROC. AND EFFECTS -AIR
FINAL OUTPUT.: REPORT TO ASSIST IN PREPARING TOTAL PROTOCOL FOR ASSESSING PHYTOTOXICITY.
MANDATE......: 20-30 AA FOR TOXIC SUBSTANCES
ORDIS CODES..: RECN-005041 SSIE-GMA 6075 EPA -R806270-01 ORD -RM10C30-2079
PE -602
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DEVELOP A PROTOCOL FOR ASSESSING THE POTENTIAL PHYTOTOXICITY OF VARIOUS CHEMICALS ON PLANTS BY MEASURING STRESS ETHYLENE EVOLUTION. THIS PROJECT WILL FOCUS SPECIFICALLY ON THE APPLICATION OF MEASURED DOSES OF WATER SOLUBLE COMPOUNDS ON THE FOLIAGE. FINAL OUTPUT: REPORT THAT WILL ASSIST US IN PREPARING A TOTAL PROTOCOL FOR ASSESSING PHYTOTOXICITY.

•PROJECT: 005202-DETERMINATION OF TOXIC VOLATILE ORGANICS IN AMBIENT AIR

TASK =G712B-BD-019 ••EPA=R806271-02 •• (GRANT)
STARTING/ COMPLETION DATE : 10/78 - 09/81 : FY79

EPA OFFICER.: RR ARNTS — EPA/ESRL - RTP — FTS 8-629-2405
INVESTIGATOR.: JW BOZZELLI — NEW JERSEY INST OF TECH — DEPT. OF CHEMISTRY
B KEBBEKUS — NEW JERSEY INST OF TECH — DEPT. OF CHEMISTRY
PROGRAM ID...: (PE-712) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: TENAX GC IN SERIES WITH SPHEROCARB PROVED TO BE BEST COMBINATION OF SORBENTS FOR RETAINING SUBSTANCES OF INTEREST. 24-HOUR SAMPLES BEING COLLECTED EVERY 6 DAYS FROM NJ.HIGH RESOLUTION GLASS CAPILLARY COLUMN CHROMATOGRAPHY USED TO SEPARATE COMPONENTS. PERKS IDENTIFIED BY RETENTION TIME AND CONFIRMED BY MASS SPECTROSCOPY. COMPOUNDS QUANTITATED BY FLAME IONIZATION AND ELECTRON CAPTURE DETECTION.
ORDIS CODES..: RECN-005202 SSIE-GMA 6196 EPA -R806271-02 ORD -RG10B30-1079
PE -712
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO DEVELOP ANALYTICAL TECHNIQUES TO MEASURE THE AMBIENT AIR CONCENTRATIONS OF 20-30 HIGH USE KNOWN OR SUSPECTED CARCINOGENS. THE RESULTS WILL BE USED TO EXAMINE THE TRANSPORT AND FATE OF THESE COMPOUNDS.APPROACH: SOLID SORBENTS HAVE BEEN TESTED TO DETERMINE THEIR APPLICABILITY TO COLLECT AMBIENT CONCENTRATIONS OF SELECTED TOXIC SUBSTANCES. SOLID SORBENTS TESTED INCLUDE TENAX GC, SILICA GEL, SPHEROCARB, PORAPAK-T, AND XAD-II. SORBENTS ARE JUDGED ACCORDING TO THEIR RETENTION VOLUME, THERMAL STABILITY, AND CLEANLINESS.

157.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R8062740100

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Aerosol Carbon Trends across the United States

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

James J. Huntzicker (principal investigator), Associate Professor and Chairman, Department of Environmental Science

Richard L. Johnson, Research Associate

Jitendra J. Shah, Ph.D. student

NAME AND ADDRESS OF APPLICANT INSTITUTION

Oregon Graduate Center for Study and Research
19600 N. W. Walker Road
Beaverton, Oregon 97005

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

In the first year of the project substantial effort was invested in modifying the carbon analysis procedure to obtain better measures of organic and elemental carbon on aerosol filter samples. Upon completion of this work, filters from urban centers around the United States were analyzed for organic, elemental, and carbonate carbon. By the end of the first year 903 samples from 42 sites will have been analyzed.

In the second year of the project, historical trends of elemental carbon concentrations will be determined at selected urban sites. These trends will be analyzed for the effects of control strategies and other external interventions. A carbon analyzer of the type used in this study will be fabricated and delivered to EPA. Current samples from EPA energy related studies will also be analyzed for organic, elemental, and carbonate carbon.

The third year of the project will involve further analysis of filter samples and detailed statistical analysis of the data.

•PROJECT: 005265-DEVELOPMENT OF COMPREHENSIVE, UNIFIED, ECONOMICALLY, AND ENVIRONMENTALLY SOUND SYSTEMS OF INTEGRATED PEST MANAGEMENT FOR MAJOR CROPS
TASK =W771E-000015 ••EPA=R806277-02 •• (GRANT)
STARTING/ COMPLETION DATE : 00/79 - CONT : FY79

EPA OFFICER.: KJ HOOD EPA/OEPER- DAA 202-426-2317
INVESTIGATOR.: PL ADKISSON TEXAS A & M UNIV DEPT OF SOIL & CROP SCI
MILESTONES...: 00/00 -QUARTERLY REPORTS; OTHERS BEING FORMULATED
PROGRAM ID...: (PE-771) INTEGRATED PESTICIDE MANAGEMENT
MANDATE.......: 10-06 FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
20-34 DAA FOR PESTICIDE PROGRAMS
CURR. RESULTS: FIELD AND LITERATURE SURVEY HAVE BEEN COMPILED ON MOST LIKELY CANDIDATE PREDATORS IN CONTROL OF SEVERAL MAJOR INSECTS PESTS IN COTTON AND OTHER CROP SYSTEMS.
ORDIS CODES..: RECN-005265 SSIE-GMA 6207 EPA -R806277-02 ORD -RW10B30-5079
PE -771
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE RESEARCH PROPOSES TO ENLARGE BASIC KNOWLEDGE OF MAJOR MANAGED ECOSYSTEMS AND TO USE THIS KNOWLEDGE IN DEVELOPMENT OF ECOLOGICALLY ORIENTED SYSTEMS OF MANAGEMENT THAT HOLD PEST POPULATIONS BELOW CROP-DAMAGING DENSITIES; ARE LESS ENERGY DEPENDENT; OPTIMIZE ECONOMIC RETURNS BY PRODUCERS AND SOCIETY; AND CAUSE LEAST DAMAGE TO THE ENVIRONMENT. THE RESEARCH IS ON APPLE, ALFALFA, COTTON AND SOYBEAN CROP-ECOSYSTEMS. APPROACH: FIFTEEN UNIVERSITIES HAVE FORMED A CONSORTIUM WHICH PERMITS A REGIONAL APPROACH TO EACH CROP SYSTEM.

•PROJECT: 001002-TISSUE SPECIFIC ACTIVATION OF ENVIRONMENTAL MUTAGENS WITH PARTICULAR EMPHASIS ON PLACENTA AND EMBRYO
TASK =DC27 -004005 ••EPA=R806279-03 •• (GRANT)
STARTING/ COMPLETION DATE : 10/78 - 10/81 : FY80

EPA OFFICER.: RJ BULL EPA/HERL - CINC FTS 8-684-7213
INVESTIGATOR.: C WITMER THOMAS JEFFERSON UNIV PHILADELPHIA PA 19107
MILESTONES...: 06/80 -DOUBLE BLIND STUDY OF QUALITY CONTROL SAMPLES
12/80 -SURVEY OF COMPOUNDS OF KNOWN ACTIVITY
06/81 -COMPLETION OF DATA ON LOW MOLECULAR WEIGHT CHLORINATED COMPOUNDS
PROGRAM ID...: (PE-C27) HEALTH EFFECTS - WATER QUALITY
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-12 DAA FOR WATER PROGRAM OPERATIONS
ORDIS CODES..: RECN-001002 SSIE-GMA 5386 2 EPA -R806279-03 ORD -RD10B30-5080
LABN-D607B-009 PE -C27
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THIS PROJECT HAS AS ITS PRIMARY GOAL THE DOCUMENTATION OF TISSUE-SPECIFIC METABOLIC ACTIVATION ON MUTAGENIC ACTIVITY OF CHEMICAL CARCINOGENS AND MUTAGENS IN THE AMES TEST. THIS WILL HOPEFULLY SERVE TO BROADEN THE QUALITATIVE PERFORMANCE OF THE TEST AND POSSIBLY IMPROVE THE QUANTITATIVE RELATIONSHIP WHICH IS VERY LOW USING ONLY LIVER S-9 FRACTIONS (R2 EQUALS 0.12). APPROACH: PRIMARY EMPHASIS WILL BE PLACED ON ASSESSING THE EFFECTS OF TISSUE-SPECIFIC INDUCTION OF MICROSOMAL ENZYMES AND THE APPLICATION OF A VARIETY OF INDUCED AND NON-INDUCED TISSUE S-9 FRACTIONS IN SALMONELLA TESTER STRAINS. MUCH OF THE EMPHASIS WILL BE PLACED UPON PLACENTAL AND EMBRYONIC TISSUES.

158.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*
SSIE R-806282-02
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT: Assessment of Potential Health Risks Associated with Organic Contaminants Feasibility Study - Great Lakes Basin

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Leonard M. Schuman, M.D.
Professor and Director - Epidemiology
School of Public Health

Conrad P. Straub, Ph.D.
Professor and Director-Environmental Hlth.
School of Public Health

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Minnesota
2642 University Avenue
St. Paul, MN 55114

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data)*. In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

1. Objective: To obtain data from existing sources on environmental levels of particular organic contaminants in environmental media for total exposure assessment of population groups in the vicinity of the Great Lakes, to evaluate these data to determine their validity in assessing total exposure, and to relate exposure levels insofar as possible to observable health effects in the populations concerned through a study of mortality and morbidity data.

2. Approach: To visit State Health Departments and other agencies to collect the data available and needed to meet the objectives above. If the data are inadequate to identify or relate to health effects, suggestions will be made as to the kinds of data required to permit assessments.

3. Current Plans: Literature on environmental levels of organic contaminants has been reviewed and additional data sources have been identified. The latter will be collected from State Health Department and other agency files. Trips to collect these data are being planned. Simultaneously with the collection of these data, mortality and morbidity records of counties adjacent to the Great Lakes will be compared with appropriate control populations further removed from the Great Lakes area, to note differences that may be attributed to or related to environmental exposure levels.

158.2

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R-806287-02

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Interference from turbid finished drinking water and high standard plate counts with the detection of coliform bacteria.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Ramon J. Seidler, P.I., Department of Microbiology
Dr. Tom Evans, Post doctoral fellow " " "
Mr. Mark LeChevallier, graduate research assistant
Mr. Chris Waarvick, graduate teaching assistant

NAME AND ADDRESS OF APPLICANT INSTITUTION
Department of Microbiology
Oregon State University
Corvallis, Oregon 97331

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data)*. In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The objective is to define the physical, chemical, and bacteriological parameters contributing to turbidity and high numbers of bacteria which interfere with the detection of coliforms in finished drinking-water. A successful technique has been devised to test for coliform masking. Masking has been found to occur at all stages of the standard MPN procedures. Assays are being devised for an experimental procedure to demonstrate masking under laboratory conditions.

•PROJECT: 000325-A PROPOSAL TO ASSESS METAL ION POLLUTION OF GROUNDWATER AS A CONSEQUENCE OF UNDERGROUND COAL GASIFICATION IN THE SAN JUAN BASIN
TASK =B623A-000850 **EPA=R806303-01 ** (GRANT)
STARTING/ COMPLETION DATE : 10/78 - 10/80 : FY79

EPA OFFICER.: RC THURNAU EPA/IERL - CINC FTS 8-684-4363
INVESTIGATOR.: EA WALTERS UNIV OF NEW MEXICO CHEM DEPT
TM NIEMCZYK UNIV OF NEW MEXICO CHEM DEPT
MILESTONES...: 11/80 -FINAL REPORT RECEIVED
PROGRAM ID...: (PE-623) EXTRACTION AND PROCESSING TECHNOLOGY -ENERGY
MANDATE......: 30-99 CHEMISTRY & CHEMICAL ENG.
CURR. RESULTS: THE EXPERIMENTS ON DETERMINING THE DISTRIBUTION EOEFFRCIENTS FOR TRACE ELEMENTS UNDER STATE CONDITIONS HAS BEEN COMPLETED AND WORK IS BEGINNING IN DYNAMIC SYSTEMS.
ORDIS CODES..: RECN-000325 SSIE-GMA 5469 1 EPA -R806303-01 ORD -RB10B30-3798
PE -623
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO DETERMINE THE POTENTIAL IMPACT ON GROUNDWATER BY METAL IONS LEACHED FROM THE ASH THAT REMAINS AFTER GASIFICATION. APPROACH: AN INVESTIGATION OF THE BASELINE CONSISTING OF WATER, COAL AND SOIL FROM THE SITE WILL BE CONDUCTED FOR METAL ROWS AND LEACHABILITY. LABORATORY WORK WILL DETERMINE RATES OF SOLUTION, DISTRIBUTION COEFFICIENTS, AND THE EXTENT OF ION EXCHANGE AND ADSORPTION OF THE METAL IONS. FIELD STUDIES WILL FOLLOW LABORATORY WORK.

*PROJECT: 004941-GROUNDWATER SAMPLING AND SAMPLE PRESERVATION TECHNIQUES

TASK =CC73 -S1T043 **EPA=R806304 ** (GRANT)
STARTING/ COMPLETION DATE : 10/78 - 02/81 : FY80

EPA OFFICER.: DE SANNING | EPA/MERL - CINC | FTS 8-684-7871
INVESTIGATOR.: JP GIBB | STATE WATER SURVEY | URBANA | IL 61801
JP GIBB | UNIV OF ILLINOIS | STATE WATER SURVEY DIV
RA GRIFFIN | STATE GEOLOGICAL SURVEY | COAL SECTION

MILESTONES...: 10/78 -PROJECT START
09/79 -ANNUAL REPORT SUBMITTED
09/80 -PROJECT COMPLETED
02/81 -FINAL REPORT PUBLISHED

PROGRAM ID...: (PE-C73) SOLID & HAZARDOUS WASTE

FINAL OUTPUT.: USEPA ORD RESEARCH REPORT WITH EXEC SUMMARY OF RESEARCH APPLICATIONS.

MANDATE......: 10-05 RESOURCE CONSERVATION AND RECOVERY ACT
20-R05 EPA REGION V

CURR. RESULTS: TO DERTERMINE IF CURRENT SAMPLING METHODS PRODUCE SAMPLES ARE REPRESENTATIVE OF WATER CONTAINED IN THE AQUIFER BEING MONITORED TO DERTERMINE IF GROUNDWARTER SMAPLED COLLECTED IN THE FIELD MUST VE TREATEDON LOC. OR IF THEY CAN BE BROUGHR BACK TO THE LAB. FOR FOR TREATMENT.

ORDIS CODES..: RECN-004941 | SSIE-GMA 6012 1 | EPA -R806304 | ORD -RC10B30-5079
LABN-C614A-0135 | PE -C73

PROJ STATUS..: ACTIVE -MULTIYEAR | INFO-UPDATED | ENTERED - UNKNOWN | UPDATED- 06-28-80
CATEGORY-RESEARCH | ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVES: 1. TO DETERMINE IF CURRENT SAMPLING METHODS PRODUCE SAMPLES THAT ARE REPRESENTATIVE OF WATER CONTAINED IN THE AQUIFER BEING MONITORED. 2. TO DETERMINE IF GROUNDWATER SAMPLES COLLECTED IN THE FIELD MUST BE TREATED (FILTERED AND ACIDIFIED) ON LOCATION OR IF THEY CAN BE BROUGHT BACK TO THE LABORATORY FOR TREATMENT WITHOUT ALTERING THEIR CHEMICAL NATURE. 3. TO DETERMINE WHICH SAMPLING AND PRESERVATION TECHNIQUES SHOULD BE ACCEPTED AS STANDARDS FOR GROUNDWATER SAMPLING. APPROACH: SIX LANDFILL MONITORING WELLS WILL BE STUDIED USING FOUR DIFFERENT PUMPING TECHNIQUES AND 13 DIFFERENT SAMPLE PRESERVATION PROCEDURES. MIXED CELLULOSE ACETATE AND NITRATE FILTER MEMBRANES 3.0, 0.45, AND 0.10 MICRON MILLIPORE IN SIZE WILL BE USED. CHEMICAL ANALYSES FOR SAMPLES FROM EACH PUMPING METHOD AND PRESERVATION PROCEDURE WILL BE CONDUCTED FOR 15 CONSTITUENTS. STATISTICAL ANALYSES OF THE RESULTS OF TRIPLICATE SAMPLES FROM EACH SAMPLING AND PRESERVATION SCHEME SHOULD PROVIDE THE BASIS TO SATISFY THE PURPOSES OF THE STUDY. FINAL OUTPUTS: USEPA OFFICE OF RESEARCH AND DEVELOPMENT RESEARCH REPORT WITH SEPARATE EXECUTIVE SUMMARY OF RESEARCH APPLICATIONS.

*PROJECT: 003156-DEVELOPMENT OF A GENERALIZED PLANNING MODEL FOR EVALUATION OF ALTERNATIVE FOREST MANAGEMENT PRACTICES - ENGINEERING PHASE
TASK =K770C-000433 **EPA=R806305 ** (GRANT)
STARTING/ COMPLETION DATE : 03/77 - UNK : FY79

EPA OFFICER.:	LA MULKEY	EPA/ERL - ATHENS	FTS 8-250-3581
INVESTIGATOR.:	DB SIMONS	COLORADO STATE UNIV	AGRIC ENG DEPT
	RM LI	COLORADO STATE UNIV	AGRIC ENG DEPT
	ET BARTLETT	COLORADO STATE UNIV	AGRIC ENG DEPT

MILESTONES...: 10/78 -COMPLETE REPORT ON GENERAL MODEL
PROGRAM ID...: (PE-770) RENEWABLE RESOURCES -WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: SCHEDULED COMPLETION OF FIRST VERSION MODEL DELAYED UNTIL APRIL 79. RESULTS INCLUDING TESTING INDICATE MODEL IS PERFORMING WELL AND OFFERS MANY IMPROVEMENTS OVER EXISTING APPROACHES.

ORDIS CODES..:	RECN-003156	SSIE-GMA 4005 2	EPA -R806305	ORD -RK10B30-1079
	LABN-K770C-440	PE -770		
PROJ STATUS..:	PROJECT-COMPLETED	INFO-UPDATED	ENTERED - UNKNOWN	UPDATED- JUL-SEP 79
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT.....: THIS IS AN INITIAL EFFORT TO DEVELOP A GENERALIZED PLANNING MODEL FOR EVALUATION OF ALTERNATIVE FOREST MANAGEMENT PRACTICES AS A FUNCTION OF ENVIRONMENTAL AND RESOURCE GOALS. THE OBJECTIVES OF THIS STUDY ARE: (1) TO DEVELOP AND TEST A WATER AND SEDIMENT ROUTING AND YIELD MODEL FOR BOTH SMALL AND LARGE WATERSHEDS AND FOR BOTH SHORT AND LONG TERM PERIODS; (2) TO DEVELOP AND TEST A PROCESS MODEL WHICH WILL SIMULATE THE EROSION AND DEPOSITION OF CHANNEL BANKS FOR UNSTABLE CHANNELS IN FORESTED UPLAND WATERSHEDS. TO INCORPORATE THIS PROCESS MODEL INTO THE DEVELOPED WATER AND SEDIMENT ROUTING MODEL, THE REMAINING OBJECTIVES WILL BE: (3) TO DEVELOP A PROCEDURE FOR ROUTING FOREST LITTER FROM THE LAND SURFACE FOR PREDICTING THE LOADING OF STREAM CHANNELS WITH ORGANIC DEBRIS; (4) TO INTERFACE ON AVAILABLE NITROGEN AND PHOSPHORUS SEDIMENT UPTAKE MODEL WITH THE DEVELOPED WATER AND SEDIMENT ROUTING MODEL; (5) TO DEVELOP A THERMAL LOADING MODEL FOR PREDICTING THE TEMPERATURE AND DISSOLVED OXYGEN OF WATER LOADING TO THE STREAM; AND (6) TO LINK THE CAUSE-EFFECT PROCESS MODEL AND THE MULTIPLE-OBJECTIVE PROGRAMMING MODEL FOR THE SELECTION OF FOREST MANAGEMENT ALTERNATIVES. IN ORDER TO MEET THE ABOVE MENTIONED OBJECTIVES, THE PROPOSED STUDY WILL DEVELOP NUMERICAL MODELS CONSIDERING THE PHYSICAL SIGNIFICANCE OF THE GOVERNING PROCESSES.

161.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA R806316-02

TITLE OF PROJECT

PIEDMONT AQUATIC ECOSYSTEM RESPONSE TO N.P.S. POLLUTANT REDUCTION

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Benjamin C. Dysart III, Professor of Environmental Systems Engineering
John C. Morse, Assoc. Prof. of Entomology & Economic Zoology
Jeffrey W. Foltz, Asst. Prof. of Entomology & Economic Zoology

NAME AND ADDRESS OF APPLICANT INSTITUTION

Clemson University
Clemson, South Carolina 29631

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The objective of this research is to assess the impact on water quality and upon major constituents of the aquatic ecosystem in general of the implementation of best management practices (BMPs) to reduce non-point source (NPS) pollutants to the system. A variety of aquatic ecosystem parameters will be monitored over time; and a determination will be made as to which ones were most sensitive to and indicative of water quality and ecosystem changes associated with the BMPs and, thereby, suitable for evaluating the effectiveness of such measures in Piedmont sand bed stream ecosystems.

Six drainages or sub-basins in the Broadway Creek basin in Anderson County, South Carolina are being studied over a 3-year period. Three of these drainages are experimental ones having BMPs installed to reduce NPS inputs including sediment, while the remaining three drainages are controls. Monthly base-flow and extensive storm flow condition samples are being collected in all three experimental-control paired drainages. Determinations are being made on various aspects of discharge and flow conditions, benthic invertebrates, fisheries, substrate or bottom sediment, suspended and bed load sediment transport, channel conditions, and water quality related to NPS pollutants

Annual surveys are being conducted along the entire length of the six streams being monitored. Information concerning channel dimensions, flow conditions, and proportion of bottom substrate in major size classifications is being collected at frequent intervals to facilitate an assessment of the habitat as well as to allow quantification of any changes.

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•PROJECT: 000595-CUYAHOGA COUNTY CENTRALIZED MANAGEMENT AND INSTRUMENTATION, MONITORING
              AND PROCESS CONTROL STUDY
                TASK =CC36 -02TD44 ••EPA=R806330      •• (GRANT)
                STARTING/ COMPLETION DATE : 08/78 - 06/80 :    FY80
  EPA  OFFICER.: MD CUMMINS               EPA/MERL - CINC              FTS-8-684-2621
  INVESTIGATOR.: SJ SEBESTA               CUYAHOGA COUNTY SANITARY ENG CLEVELAND            OH 44113
                 R  MORITZ                CUYAHOGA COUNTY SANITARY ENG CLEVELAND            OH 44113
  MILESTONES...: 03/79 -SELECT INSTRUMENTATION CONTRACTOR
                 04/79 -COLLECT ECONOMIC COST DATA
                 06/79 -PROCURE INSTRUMENTATION
                 07/79 -CALIBRATE MANAGEMENT MATHEMATICAL MODEL
                 03/80 -IMPLEMENT PROCESS CONTROL STUDY
                 12/80 -IMPLEMENT REMOTE MONITORING SYSTEM
  PROGRAM ID...: (PE-C36 )       URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 30-99     ENVIRONMENTAL ENGINEERING
  CURR. RESULTS: INSTRUMENTATION INSTALLED 12/80
                 DATA COLLECTION BEGAN 3/80
                 OF REMOTE SENSORS.
  ORDIS CODES..: RECN-000595         SSIE-GMA  5434 2      EPA -R806330         ORD -RC10B30-5080
                 LABN-C611B-0140     PE  -C36
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS RESEARCH IS TO EVALUATE THE COST BENEFITS OF LOW-COST FIELD-PROVEN
                  SENSORS AND TELECOMMUNICATION EQUIPMENT IN MONITORING PACKAGE SEWAGE TREATMENT PLANTS. APPROACH:
                  EPA/MERL-WRD HAS DEVELOPED A CENTRALIZED MANAGEMENT MODEL FOR OPERATING A GROUP OF SMALL TREATMENT
                  PLANTS. THE MODEL WILL BE CALIBRATED USING FIELD DATA AND IMPLEMENTED AT CUYAHOGA COUNTY, OHIO.


•PROJECT: 005226-A NEW SAMPLING THEORY FOR THE MEASUREMENT OF ECOSYSTEM STRUCTURE AND
              FUNCTION
                TASK =KC1V -000306 ••EPA=R806330      •• (GRANT)
                STARTING/ COMPLETION DATE : 08/79 - 08/80 :    FY80
  EPA  OFFICER.: JH HILL                  EPA/ERL - ATHENS             404-546-3147
  INVESTIGATOR.: RJ MULHOLLAND            OKLAHOMA STATE UNIV          SCH OF ELECTRICAL ENG
  PROGRAM ID...: (PE-C1V )          TRANSPORT AND FATE  - TOXICS
  MANDATE......: 30-99     YSTEMS ECOLOGY
  CURR. RESULTS: "KNONECKER PRODUCT REPRESENTATION FOR THE SOLUTION
                 OF THE GENERAL LINEAR MATRIX EQUATION" IN PRESS.
  ORDIS CODES..: RECN-005226         SSIE-GMA  6172 1      EPA -R806330         ORD -RK10B30-1080
                 LABN-K760C-317      PE  -C1V
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE PROPOSED RESEARCH IS INTENDED TO AID IN THE DEVELOPMENT OF A SCHEME FOR EVALUATING
                 THE POTENTIAL HAZARDS OF TOXIC MATERIALS RELEASED INTO THE ENVIRONMENT WITH A METHODOLOGY FOR
                 SAMPLING, MEASUREMENT, AND ANALYSIS OF LABORATORY MICROCOSMS. APPROACH: SYSTEMS THEORY AND SYSTEMS
                 ECOLOGY.
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·PROJECT: 006005-PILOT DEMONSTRATION AND ENVIRONMENTAL EVALUATION OF ARTIFICIAL REEF CONSTRUCTION USING FLUE GAS CLEANING WASTES
TASK =F827J-791970 ··EPA=R806341 ·· (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 10/83 : FY79

EPA OFFICER.: JW JONES — EPA/IERL - RTP — FTS 8-629-2915
INVESTIGATOR.: SO WILSON — STATE ENERGY RES & DEVEL — ALBANY — NY 12223
PROGRAM ID...: (PE-827) — ENV IMPACT OF CONV & ADV ENERGY SYSTEMS
MANDATE......: 10-14 — NATIONAL ENVIRONMENTAL POLICY ACT
CURR. RESULTS: BASELINE OCEANOGRAPHIC SURVEY (IN THE WATER COLUMN AND SCALED) WAS CONDUCTED IN THE VICINITY OF THE REEF SITE. SCUBA SURVEYS WERE ALSO CONDUCTED AND SAMPLES COLLECTED OF BENTHIC AND EPIBENTHIC ORGANISMS FOR BASELINE CHEMICAL CHARACTERIZATION 1 CUBIC FT. TEST BLOCKS PLACED IN TEST AREA AND PRELIMINARY PHYSICAL TESTING OF THE TEST BLOCKS HAS BEEN CONCLUDED. CORPS OF ENGINEERS PERMIT FOR CONSTRUCTION OF THE REEF HAS BEEN ISSUED.
ORDIS CODES..: RECN-006005 — SSIE-GMA 6496 — EPA -R806341 — ORD -RF10B31-1079
PE -827
PROJ STATUS..: PROJECT-ACTIVE — INFO-ORIGINAL — ENTERED - 06-28-80 — UPDATED- 06-28-80
CATEGORY-RESEARCH — ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: DEMONSTRATE THE TECHNICAL, ENVIRONMENTAL, AND ECONOMIC VIABILITY OF CONSTRUCTING AN ARTIFICIAL REEF IN COASTAL WATERS USING CHEMICALLY TREATED BLOCKS OF FLUE GAS CLEANING WASTES (SO_2 SLUDGE AND FLY ASH). APPROACH: RESULTS OF PHASE I (LAB AND SMALL-SCALE (BAY) TESTS) WILL BE REPORTED AFTER FIRST YEAR; PHASE II (LARGE PILOT (OCEAN) TESTS) RESULTS WILL BE REPORTED ANNUALLY. USERS WILL BE EPA, STATE AGENCIES, UTILITIES, CONSULTANTS, PROCESS SUPPLIERS.

*PROJECT: 004727-TREATMENT OF STORMWATER RUNOFF BY A MARSH/FLOOD BASIN

TASK =CC35 -S2T026 **EPA=R806357 ** (GRANT)
STARTING/ COMPLETION DATE : 09/78 - 03/81 : FY80

EPA OFFICER.: DC AMMON   EPA/MERL - CINC   FTS 8-340-6677
INVESTIGATOR.: YJ LITWIN   RAMLIT ASSOCIATES INC.   BERKELEY   CA 94705
T BURSZTYNSKY   ASSN. OF BAY AREA GOVMNTS   BERKELEY   CA 94705
MILESTONES...: 08/79 -COMPLETE INITIAL CHARACTERIZATION OF STUDY AREA
02/80 -COMPLETE LITERATURE REVIEW
03/80 -COMPLETE INFLOW AND OUTFLOW DATA COLLECTION
06/80 -COMPLETE ANALYSIS OF RESULTS
09/80 -COMPLETE DRAFT FINAL REPORT
PROGRAM ID...: (PE-C35)   WASTEWATER SYSTEMS CONTROL TECHNOLOGY
MANDATE......: 10-01   FEDERAL WATER POLLUTION CONTROL ACT
30-99
ORDIS CODES...: RECN-004727   SSIE-GMA 5994 1   EPA -R806357   ORD -RC10B30-5080
PE -C35
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO ANALYZE THE QUALITATIVE CHANGES OF SURFACE RUNOFF AS A RESULT OF PONDING IN A MARSH/FLOOD BASIN. COMPARISON WILL BE MADE BETWEEN USING THE MARSH/FLOOD BASIN AS A TREATMENT MEASURE FOR MITIGATING STORMWATER RUNOFF POLLUTION, OTHER BMPS AND STRUCTURAL TECHNIQUES USED FOR THAT PURPOSE. APPROACH: THE OBJECTIVES WILL BE SATISFIED BY AN EXTENSIVE SAMPLING AND MONITORING PROGRAM WHICH WILL INCLUDE COLLECTING DATA AND ANALYZING CHARACTERISTICS OF THE BASIN AND THE TRIBUTARY WATERSHED AND COST INFORMATION OF BASIN OPERATION. ALSO INCLUDED VIA SUPPLEMENTAL FUNDING AS DESCRIBED HEREIN WILL BE A THOROUGH LITERATURE SEARCH UPDATING THE STATE-OF-THE-ART ON POLLUTANT CONTROL UTILIZING BEST VEGETATIVE AND HYDRAULIC PRACTICES.

164.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE R-806368-02

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Oxidation and Conjugation of Carcinogenic Hydrocarbons in Marine Animals

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. D. Ralph Strength, Professor, Biochemistry & Nutrition, Department of Animal & Dairy Science, Project Director

Dr. Harlow H. Daron, Associate Professor, Biochemistry, Department of Animal & Dairy Sci.

Dr. John L. Aull, Associate Professor, Biochemistry, Department of Chemistry

NAME AND ADDRESS OF APPLICANT INSTITUTION

Auburn University

Auburn, Alabama 36830

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The oxidative metabolism of polycyclic aromatic hydrocarbons (PAH) results in products of high cellular toxicity or mutagenicity. The types of compounds that undergo this oxidative metabolism include: steroids, drugs, insecticides, anesthetics, as well as polycyclic hydrocarbons. The primary purpose of this proposed project is the study of types of oxidation products produced by the metabolism of selected fish and shellfish and the extent and types of conjugated products formed by these selected marine organisms. The enzyme systems involved in the production and activation of glucuronic acid and sulfate will be ascertained in tissues of marine organisms. Since oxidation of PAH produces more polar compounds that may be conjugated with several known compounds, the conjugation and consequent increase in solubility may be a highly important part of the process that protects all organisms from short-term toxicity and long-term carcinogenesis. The mechanisms of induction of glucuronosyltransferase and sulfatransferase enzymes by PAH compounds and their metabolites will be studied.

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·PROJECT: 004925-THE IMPACT OF STRATOSPHERIC OZONE DEPLETION UPON TROPOSPHERIC
                 ULTRAVIOLET, PHOTOCHEMISTRY AND SMOG
                   TASK =X861A-000001 ··EPA=R806373-01  ·· (GRANT)
                   STARTING/ COMPLETION DATE : 04/79 - 04/80 :   FY79
 EPA  OFFICER.: AF FORZIATI              EPA/OHR- DAA                     202-426-2317
 INVESTIGATOR.: AE GREEN                 STATE UNIV SYS OF FLORIDA        INTER. CENTER FOR AERON
                WL CHAMOIDES             STATE UNIV SYS OF FLORIDA        INTER. CENTER FOR AERON
 MILESTONES...: 09/79 -PROGRESS REPORT ON IMPACT OF OZONE DEPLETION ON UV RADIATION
                04/80 -STATUS REPORT, PHASE 1. TO DETERMINE IF PHASE 2 IS TO BE UNDERTAKE
                00/00 -FINAL OUTPUT - TO BE DETERMINED WHEN PHASE 1 IS COMPLETED
 PROGRAM ID...: (PE-861 )          HEALTH EFFECTS STRATS MODS
 MANDATE......: 10-02     CLEAN AIR ACT
                20-33     DAA FOR CHEMICAL CONTROLS
 CURR. RESULTS: PRELIMINARY CALCULATIONS DONE, LEADING TO HYPOTHESIS
                THAT THERE WILL BE IMPACT OF O3 DEPLETION ON UV.
                PHOTOLYSIS AND SMOG FORMATION.
 ORDIS CODES..: RECN-004925          SSIE-GMA  5864       EPA -R806373-01       ORD -RX10B30-5079
                PE  -861
 PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL        ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO ATTEMPT TO DETERMINE IF DEPLETION OF STRATOSPHERIC OZONE (O3) INCREASES ULTRAVIOLET
                 RADIATION AT THE EARTH'S SURFACE AND TO THEN EXAMINE POSSIBLE IMPACTS ON SKIN CANCER, PLANT YIELDS
                 AND PHOTOCHEMICAL SMOG. APPROACH: UNDERTAKE RADIATIVE TRANSFER CALCULATIONS AND MODELING STUDIES OF
                 O3 DEPLETION IMPACT ON TROPOSPHERIC UV RADIATION AND PHOTOLYSIS RATES; AND PHOTOCHEMICAL MODEL
                 CALCULATIONS OF THE EFFECT OF ENHANCED UV RADIATION AND PHOTOLYSIS RATES ON TROPOSPHERIC
                 PHOTOCHEMISTRY AND SMOG FORMATION. RESULTS TO DATE: THE INVESTIGATORS AND OTHERS HAVE PREVIOUSLY
                 DONE PRELIMINARY CALCULATIONS LEADING TO THE HYPOTHESIS THAT THERE WILL BE IMPACT OF O3 DEPLETION
                 ON UV, PHOTOLYSIS AND SMOG FORMATION.
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•PROJECT: 005345-ECOLOGICAL EFFECTS OF STORM RUNOFF IN AN URBAN STREAM

TASK =MC32 -000021 ••EPA=R806387-01 •• (GRANT)
STARTING/ COMPLETION DATE : 12/78 - 11/81 : FY80

EPA OFFICER..: KW MALUEG   EPA/ERL - CORVALLIS   FTS 8-420-4761
INVESTIGATOR.: MA PERKINS   UNIV OF WASHINGTON   ENG DEPT
MILESTONES...: 12/79 -ANNUAL PROGRESS REPORT
12/80 -ANNUAL PROGRESS REPORT
11/81 -REPORT ENTITLED - ECOLOGICAL EFFECTS OF STORM RUNOFF IN AN URBAN STREAM
PROGRAM ID...: (PE-C32)   FRESHWATER ECO EFFECTS - WATER QUALITY
FINAL OUTPUT.: REPORT ENTITLED: ECOLOGOICAL EFFECTS OF STORM RUNOFF
MANDATE......: 20-10   AA FOR WATER AND WASTE MANAGEMENT
20-R10   EPA REGION X
CURR. RESULTS: IN AN URBAN STREAM
CHEMICAL AND PERIPHYTON SAMPLING PROGRAMS INITIATED.
FISHERIES ASPECTS OF STUDY BEGUN WITH COMPARISON OF
FISH POPULATIONS IN STREAMS.
ORDIS CODES..: RECN-005345   SSIE-GMA 6355 1   EPA -R806387-01   ORD -RM10B30-2080
PE -C32
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS PROJECT ARE TO IDENTIFY THOSE SHORT AND LONG TERM IMPACTS ASSOCIATED WITH STORM RUNOFF FROM AN URBAN AREA UPON THE BIOTA OF A RECEIVING STREAM. A FURTHER ASSESSMENT WILL BE MADE OF THE REALIZED AND/OR POTENTIAL MITIGATION OF THOSE IMPACTS DUE TO STORMWATER MANAGEMENT PRACTICES WITHIN SELECTED SUBDRAINAGES OF THE STUDY AREA. APPROACH: THE APPROACH WILL BE CENTERED AROUND SAMPLING OF THE PERIPHYTON, MACROINVERTEBRATE AND FISH COMMUNITIES OF URBANIZED AND NON-URBANIZED STREAMS TO DETERMINE PATTERNS OF SPATIAL/TEMPORAL VARIATION AND HOW THESE MAY RELATE TO URBAN RUNOFF. MACROINVERTEBRATE SAMPLING HAS BEEN DEVEOTED TO SITE SELECTION, STATISTICAL SAMPLING REQUIREMETS AND EVALUATION OF TEMPORAL VARIATIONS, AND ORGANISM INDENTIFICATION. THE FISHERIES ASPECTS OF THE STUDY HAS BEGUN WITH A COMPARISON OF FISH POPULATIONS IN THE STREAMS.

•PROJECT: 006651-MICROWAVES, HYPERTHERMIA AND HUMAN LEUKOCYTE FUNCTION

TASK =HC98 -967300 ••EPA=R806390 •• (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 08/80 : FY80

EPA OFFICER..: RJ SMIALOWICZ   EPA/HERL - RTP   629-2541
INVESTIGATOR.: UNKNOWN   UNIV OF ROCHESTER   ROCHESTER   NY
PROGRAM ID...: (PE-C98)   HEALTH AND ECOLOGICAL EFFECTS- RADIATION
MANDATE......: 10-04   PUBLIC HEALTH SERVICES ACT
ORDIS CODES..: RECN-006651   SSIE-HZ 809673   EPA -R806390   ORD -RH10B30-1080
PE -C98
PROJ STATUS..: PROJECT-ACTIVE   INFO-ORIGINAL   ENTERED - 06-28-80   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: TO DETERMINE THE EFFECT OF IN VITRO EXPOSURE OF HUMAN LYMPHOCYTES TO 2450 MHZ MICROWAVES CONTRACTOR HAS NOT YET BEGUN EXPERIMENTS. IS STILL IN THE PROCESS OF CONSTRUCTING AND TESTING MICROWAVE EXPOSURE SYSTEM.

•PROJECT: 005341-HABITAT STRUCTURE AND FISH COMMUNITIES IN WARMWATER STREAMS

TASK =M820 -000017 **EPA=R806391 ** (GRANT)
STARTING/ COMPLETION DATE : 11/78 - 10/81 : FY79

EPA OFFICER..: JN GAKSTATTER EPA/ERL - CORVALLIS 503-757-4611
INVESTIGATOR..: JR KARR UNIV OF ILLINOIS DEPT OF PSYCHOLOGY
MILESTONES....: 10/79 -ANNUAL REPORT SUMMARIZING FINDINGS
10/80 -ANNUAL REPORT SUMMARIZING FINDINGS
PROGRAM ID....: (PE-820) FRESHWATER ECO EFFECTS - WATER QUALITY
MANDATE.......: 20-10 AA FOR WATER AND WASTE MANAGEMENT
20-11 DAA FOR WATER PLANNING AND STANDARDS
CURR. RESULTS: STREAMS AND SAMPLING SITES HAVE BEEN SELECTED
AND SAMPLING STARTED.
ORDIS CODES...: RECN-005341 SSIE-GMA 6349 EPA -R806391 ORD -RM10B30-2079
PE -820
PROJ STATUS...: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: THE OBJECTIVES ARE (1) TO IDENTIFY RELATIONSHIPS BETWEEN STREAM HABITAT STRUCTURE AND WARMWATER FISH COMMUNITIES, (2) EVALUATE THE RELATIVE IMPORTANCE OF LAND USE ACTIVITIES AND CONCOMITANT NPS POLLUTANTS VERSUS HABITAT STRUCTURE IN REGULATING FISH COMMUNITIES IN WARMWATER STREAMS, AND (3) DEVELOP METHODS WHICH CAN BE USED BY WATER RESOURCE MANAGERS TO ASSESS STREAM SYSTEM AND PREDICT CONSEQUENCES OF HABITAT CHANGES ON THE BIOTA. APPROACH: SAMPLING PROGRAMS TO DETERMINE WATER QUALITY, HABITAT STRUCTURE, INVERTEBRATE POPULATIONS AND FISH POPULATIONS ARE BEING CONDUCTED ON FOUR STREAMS, REPRESENTING THE BROADEST RANGE OF HABITAT TYPES AND LAND USE CONDITIONS AVAILABLE IN THE SMALL WARMWATER STREAMS OF ILLINOIS.

•PROJECT: 005171-EPIDEMIOLOGICAL IMPACT OF GROUNDWATER RECHARGE

TASK =DC60 -4D001E **EPA=R806399-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 02/81 : FY80

EPA OFFICER..: RK MIDAY EPA/HERL - CINC FTS 8-684-7461
INVESTIGATOR..: M NELLOR LOS ANGELES CO SAN DIST WHITTIER CA 90607
R FRERICHS LOS ANGELES CO SAN DIST WHITTIER CA 90607
MILESTONES....: 06/80 -COMPLETION OF PLANNING PROGRAM
06/81 -INITIAL DATA EVALUATION
03/82 -STATISTICAL ANALYSIS COMPLETED
PROGRAM ID....: (PE-C60) HEALTH EFFECTS - DRINKING WATER
FINAL OUTPUT..: STATISTICAL ANALYSIS
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-11 DAA FOR WATER PLANNING AND STANDARDS
20-13 DAA FOR DRINKING WATER
ORDIS CODES...: RECN-005171 SSIE-GMA 6177 1 EPA -R806399-01 ORD -RD10B30-5080
LABN-D607D-006 PE -C60
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: TO ASSESS THE POTENTIAL HEALTH EFFECTS ASSOCIATED WITH THE LONG-TERM USE OF DRINKING WATER WHICH HAS BEEN RECHARGED IN PART WITH RECLAIMED WATER. APPROACH: AN EPIDEMIOLOGY STUDY WILL BE DONE USING EXISTING DATA TO DETERMINE IF RESIDENTS OF AN AREA WHICH HAS BEEN SUPPLIED WITH RECYCLED WATER DIFFER IN PATTERNS OF MORBIDITY AND MORTALITY FROM RESIDENTS IN THE SAME AREA PRIOR TO IMPLEMENTING RECYCLING AND FROM RESIDENTS FROM SIMILAR COMMUNITIES DRINKING NON-RECHARGED WATER.

*PROJECT: 006653-DEVELOPMENT OF AN IN VITRO MODEL FOR ORGANOPHOSPHORUS-INDUCED DELAYED NEUROTOXICITY
TASK =HC86 -950600 **EPA=R806400 ** (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 05/82 : FY80

EPA OFFICER.: TM SCOTTI EPA/HERL - RTP FTS 8-629-2367
INVESTIGATOR.: GRAHAM DUKE UNIV MEDICAL CENTER
MILESTONES...: 09/79 -DEVELOP AGAR ADSORPTION TECHNIQUE
06/82 -DEVELOP SENSITIVE INDEX OF NEURITE INJURY
06/82 -DEVELOP OPTIMAL HISTOPATHOLOGIC TECHNIQUES
06/82 -CORRELATE IN VITRO SYSTEMS WITH IN VIVO SYSTEMS
06/82 -EST. OPTIMAL CONDITIONS FOR DEGEN. OF NS IN VIVO
PROGRAM ID...: (PE-C86) HEALTH EFFECTS - PESTICIDES
MANDATE......: 30-03 TOXIC SUBSTANCES CONTROL ACT
ORDIS CODES..: RECN-006653 SSIE-HZ 809506 EPA -R806400 ORD -RH10B30-3080
PE -C86
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: DEVELOP SENSITIVE INDEX OF NEURITE INJURY IMR-32 AND LA-N-1 HUMAN NEUROBLASTOMA LINES WERE EXPOSED TO A SERIES OF ORGANOPHOSPHORUS COMPOUNDS IN TISSUE CULTURE, UTILIZING THE AGAR ADSORPTION TECHNIQUE WE DEVELOPED FOR THIS PURPOSE. BOTH OF THESE ADRENERGIC NEUROBLASTOMA LINES DEMONSTRATED REDUCTIONS IN COCAINE-INHIBITABLE (3H)-NOREPINEPHRINE UPTAKE AFTER THREE HOURS OF EXPOSURE, WHICH WE PROPOSE TO REPRESENT A SENSITIVE INDEX OF NEURITE INJURY. EACH OF THE ORGANOPHOSPHORUS COMPOUNDS EMPLOYED RESULTED IN STATISTICALLY SIGNIFICANT REDUCTIONS IN (3H)-NOREPINEPHRINE UPTAKE BY IMR-32 NEUROBLASTOMA CELLS AFTER 3 HOURS OF EXPOSURE. THE ALKYL ORGANOPHOSPHORUS COMPOUNDS EFFECTED GREATER REDUCTIONS THAN THE ARYL COMPOUNDS, SUGGESTING THAT THE IN VITRO EFFECT WAS A REFLECTION, OF THE RELATIVE WATER SOLUBILITY OF THE ORGANOPHOSPHORUS COMPOUND. LEPTOPHOS, THE LEAST TOXIC AGENT WITH THE IMR-32 CELLS, RESULTED IN NO ALTERATIONS IN (3H) NOREPINEPHRINE UPTAKE BY LA-N-1 NEUROBLASTOMA CELLS, WHILE THE REST OF THE COMPOUNDS WERE MORE EFFECTIVE THAN WITH THE IMR-32 CELLS. THE ORDER IN WHICH THESE AGENTS AFFECTED (3H) NOREPINEPHRINE UPTAKE WAS THE SAME FOR THE TWO HUMAN ADRENERGIC LINES. WHILE THE COCAINE-INHIBITABLE UPTAKE OF (3H) NOREPINEPHRINE BY LA-N-1 CELLS WAS ONLY 20% OF THAT OF IMR-32CELLS IN CONTROL CULTURES. THE CHOLINERGIC CLONE, LA-N-2, EFFECTED NO GREATER UPTAKE OF (3H) NOREPINEPHRINE IN THE ABSENCE THAN IN THE PRESENCE OF 10-5 M COCAINE. ALSO CONSISTENT WITH THE CHOLINERGIC DIFFERENTIATION OF THE LA-N-2 CLONE WAS THE ABSENCE OF CATECHOLAMINES IN PERCHLORIC ACID EXTRACTS BY HIGH PRESSURE LIQUID CHROMATOGRAPHY. MEASURABLE LEVELS OF DOPAMINE WERE FOUND IN PERCHLORIC ACID EXTRACTS OF IMR-32 CELLS. WHILE NOREPINEPHRINE WAS FOUND IN LA-N-1 CELLS. A SUB-NEUROTOXIC DOSE OF (14C) PHENYL EPN (OETHYL-O-4-NITROPHENYL PHENYL (14C) PHOSPHONOTHIOATE) WAS ADMINISTERED ORALLY AT A DOSE OF 10 MG/ KG (2.73 CI/KG). RADIOACTIVITY IN TISSUES REACHED A PEAK OF 33% OF THE DOSE 12 HOURS AFTER ADMINISTRATION. TISSUE RADIOACTIVITY FELL TO 2% AT 12 DAYS. RADIOACTIVITY WAS HIGHEST IN MUSCLE, FOLLOWED BY SKIN AND LIVER. BRAIN, SPINAL CORD, AND SCIATIC NERVE, THE SITES OF INJURY IN DELAYED NEUROTOXICITY BY EPN, CONTAINED ONLY LOW LEVELS OF RADIOACTIVITY.

•PROJECT: 005133-DISEASE TRANSMISSION ASSOCIATED WITH LAND APPLICATION OF WASTEWATER

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                 TASK =DC27 -1A0002 **EPA=R806416-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 01/79 - 11/82 :   FY80
EPA OFFICER.: W  JAKUBOWSKI          EPA/HERL - CINC              FTS 8-684-7385
INVESTIGATOR.: HI SHUVAL             HEBREW UNIV OF JERUSALEM     ENVIRONMENTAL HEALTH LAB
              B  FATTAL              HEBREW UNIV OF JERUSALEM     ENVIRONMENTAL HEALTH LAB
              M  DAVIES              HEBREW UNIV OF JERUSALEM     ENVIRONMENTAL HEALTH LAB
MILESTONES...: 05/80 -INITIATE DATA COLLECTION PHASE
              11/80 -ANNUAL REPORT
              05/81 -COMPLETE DATA COLLECTION PHASE
              11/81 -ANNUAL REPORT
              11/82 -ASSESSMENT OF HEALTH EFFECTS ASSOCIATED WITH SPRAY IRRIGATION OF WASTEWATER
PROGRAM ID...: (PE-C27 )        HEALTH EFFECTS - WATER QUALITY
FINAL OUTPUT.: ASSESSMENT OF HEALTH EFFECTS ASSOCIATED WITH SPRAY
              IRRIGATION OF WASTEWATER
MANDATE......: 10-01   FEDERAL WATER POLLUTION CONTROL ACT
              20-12   DAA FOR WATER PROGRAM OPERATIONS
ORDIS CODES..: RECN-005133     SSIE-GMA  6248 1    EPA -R806416-01     ORD -RD10B30-5080
              LABN-D607A-006A  PE  -C27
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED    ENTERED - UNKNOWN    UPDATED-  06-28-80
              CATEGORY-RESEARCH   ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: 1) TO DETERMINE AND MEASURE IF THERE IS A DEGREE OF ADDED RISK OF COMMUNICABLE DISEASE INCIDENCE ASSOCIATED WITH WASTEWATER LAND APPLICATION AND IRRIGATION IN AGRICULTURAL COMMUNITIES (KIBBUTZIM). 2) TO DETERMINE THE RELATIONSHIP BETWEEN ROUTES OF TRANSMISSION AND DISEASE INCIDENCE IN THE STUDY POPULATION. APPROACH: A PROSPECTIVE EPIDEMIOLOGICAL STUDY WILL BE CARRIED OUT IN 30 KIBBUTZIM IN ISRAEL WHICH PRACTICE WASTEWATER IRRIGATION AND IN CONTROL GROUPS NOT IRRIGATING WITH WASTEWATER. HEALTH RECORDS OF THE VARIOUS POPULATION GROUPS WILL BE STUDIED AND EPIDEMIOLOGIC FOLLOW-UPS OF HIGHLY SUSCEPTIBLE GROUPS WILL BE MADE (VISITING VOLUNTEERS, ETC). SEROLOGIC AND OTHER LAB TESTS WILL BE USED TO COMPARE INFECTION RATES OF EXPOSED AND CONTROL GROUPS. AIR MONITORING STUDIES FOR AEROSOLIZED BACTERIA AND VIRUSES WILL BE CARRIED OUT.

*PROJECT: 005106-TOXIC & PRIORITY POLLUTANT ORGANICS IN MUNICIPAL SLUDGE LAND TREATMENT SYSTEMS
TASK =CC36 -S1TC42 **EPA=R806421 ** (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 01/83 : FY80

EPA OFFICER.: JA RYAN   EPA/MERL - CINC   FTS-8-684-7653
INVESTIGATOR.: LA JONES   NORTH CAROLINA STATE UNIV   BIOL/AGRIC ENG
MR OVERCASH   NORTH CAROLINA STATE UNIV   BIOL/AGRIC ENG
JB WEBER   NORTH CAROLINA STATE UNIV   BIOL/AGRIC ENG
MILESTONES...: 10/81 -CONTINUATION FUNDING
PROGRAM ID...: (PE-C36)   URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
MANDATE......: 30-99   WASTEWATER TREATMENT & DISPOSAL
ORDIS CODES..: RECN-005106   SSIE-GMA 6226 1   EPA -R806421   ORD -RC10B30-3080
PE -C36
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: DETERMINE WHICH OF THE PRIORITY ORGANIC POLLUTANTS PRESENT IN SEWAGE SLUDGE IMPACT THE PLANTS WHICH ARE GROWN ON SOILS AND AMENDED WITH THE SEWAGE SLUDGE. EVALUATE THE ENVIRONMENTAL FATE OF THOSE PRIORITY POLLUTANTS WHICH ARE TRANSFERRED FROM THE SLUDGE TO THE CROP. APPROACH: PLANTS PRODUCED IN SOIL WHICH HAS BEEN AMENDED WITH C14 LABELLED PRIORITY ORGANIC POLLUTANTS WILL BE EVALUATED FOR C14 UPTAKE. FOR THOSE COMPOUNDS WHICH ARE ACCUMULATED IN THE PLANT, MEASURE THEIR CONCENTRATION IN THE VARIOUS TISSUES AND DETERMINE THEIR RATES OF DECOMPOSITION AND VOLATILIZATION IN SOIL.

*PROJECT: 006369-TRADESCANTIA-MCN-IN-TETRAD MUTAGEN TEST FOR ONSITE MONITORING & FURTHER VALIDATION OF TEST SYS.
TASK =HC2R -994500 **EPA=R806422 ** (GRANT)
STARTING/ COMPLETION DATE : 03/79 - 02/80 : FY80

EPA OFFICER.: SANDHU   EPA/HERL - RTP   629-3850
INVESTIGATOR.: UNKNOWN   WESTERN ILLINOIS UNIV
MILESTONES...: 09/79 -IN SITU MONITOR PARKING GARAGE, DIESEL EXHAUST
01/80 -BIOASSAY-PA. MONITOR PARKING GARAGE, DIESEL EXHAUS
03/80 -BIOASSAY-NIACIN, SACCHARIN, BAP DIESEL EXHAUSTS
03/80 -BIOASSAY NAHSO3, ZN-GLUCONATE, PBC12
PROGRAM ID...: (PE-C2R)   HEALTH EFFECTS OF ENERGY RELATED POLLUTANTS
MANDATE......: 30-10   ENVIRONMENTAL RD&D AUTHORIZATION ACT
ORDIS CODES..: RECN-006369   SSIE-HZ 809945   EPA -R806422   ORD -RH10B30-3080
PE -C2R
PROJ STATUS..: PROJECT-ACTIVE   INFO-ORIGINAL   ENTERED - 06-28-80   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT.....: VALIDATION OF THE TRADESCANTIA MICRONUCLEI TEST FIVE COMPOUNDS, ZINC, CHLORIDE, SODIUM BISULFITE, NIACIN, BENZO(A)PYRENE AND SACCHARINE WERE EVALUATED FOR THEIR CHROMOSOMAL ABERRATION EFFECTS. OF THESE COMPOUNDS, ONLY SACCHARINE GAVE A POSITIVE DOSE-RELATED RESPONSE. THE TREATMENT DOSES FOR SACCHARINE WERE FROM 5 MICROMOLAR TO 50 MICROMOLAR.

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*PROJECT: 006140-TRADESCANTIA-MCN-IN-TETRAD MUTAGEN TEST FOR ONSITE MONITORING & FURTHER
              VALIDATION OF TEST SYS.
                TASK =H834 -994500 --EPA=R806422     ** (GRANT)
                STARTING/ COMPLETION DATE : 03/79 - 02/80 :   FY79
  EPA  OFFICER.:   SANDHU                EPA/HERL - RTP                 629-3850
  INVESTIGATOR.:   UNKNOWN               WESTERN ILLINOIS UNIV
  MILESTONES...: 09/79 -IN SITU MONITOR PARKING GARAGE, DIESEL EXHAUST
                 01/80 -BIOASSAY-PA, MONITOR PARKING GARAGE, DIESEL EXHAUS
                 03/80 -BIOASSAY-NIACIN, SACCHARIN, BAP DIESEL EXHAUSTS
                 03/80 -BIOASSAY NAHSO3, ZN-GLUCONATE, PBC12
  PROGRAM ID...: (PE-834 )          HEALTH EFFECTS -ENERGY
  MANDATE......: 20-20     AA FOR AIR AND WASTE MANAGEMENT
  ORDIS CODES..: RECN-006140        SSIE-HZ 799945       EPA -R806422        ORD -RH10B30-2079
                 LABN-H834 -994500  PE  -834
  PROJ STATUS..: PROJECT-ACTIVE     INFO-ORIGINAL        ENTERED - 06-28-80  UPDATED-  06-28-80
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: VALIDATION OF THE TRADESCANTIA MICRONUCLEI TEST ELEVEN SITES WERE MONITORED. SOME OF THEM REPEATED.
                  SOME PARKING GARAGES, BUS OR TRUCK STOPS GAVE POSITIVE RESULTS, AND IN FEW CASES, THE MCN
                  FREQUENCIES WERE 2-4 TIMES OF THE BACKGROUND LEVEL. MALEIC HYDRAZIDE WAS FURTHER TESTED WITH
                  TRADESCANTIA MICRONUCLEUS TEST AND HUMAN LYMPHOCYTE MICRONUCLEUS TEST. CHROMOSOME LESIONS OR GAPS
                  WERE OBSERVED IN HUMAN LYMPHOCYTES. DIESEL EXHAUST FUMES AND ITS CONDENSATE WERE TESTED. IN SITU
                  MONITORING AT US EPA MONITORING STATION, AND AT DOWNTOWN DURHAM, WAS CONDUCTED.

*PROJECT: 004828-THE EFFECT OF COLLISIONAL LIFETIME IN OPTOACOUSTIC DETECTION OF
              POLLUTANT GASES
                TASK =GC2Q -000616 --EPA=R806439-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 02/79 - 02/80 :   FY80
  EPA  OFFICER.: WA MCCLENNY             EPA/ESRL - RTP                 FTS 8-629-3158
  INVESTIGATOR.: W  CHRISTIAN            ALLEGHENY COLLEGE              DEPT. OF PHYSICS
  MILESTONES...: 02/80 -ORD REPORT ON OPTOACOUSTIC DETECTION OF POLLUTANTS
  PROGRAM ID...: (PE-C2Q )          MEASURE SYS & INSTR. DEVEL FOR ENERGY REL POLL
  FINAL OUTPUT.: REPORT ON OPTOACOUSTIC DETECTION OF POLLUTANTS
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: FINAL DRAFT REPORT RECEIVED.
  ORDIS CODES..: RECN-004828        SSIE-GMA  5788 1     EPA -R806439-01     ORD -RG10B30-1080
                 LABN-G833D-EB-043  PE  -C2Q
  PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED         ENTERED - UNKNOWN   UPDATED-  06-28-80
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DETERMINE THE RELATIONSHIP BETWEEN OPTOACOUSTIC SIGNAL, ABSORPTION COEFFICIENT,
                  COLLISIONAL LIFETIME, CHOPPING FREQUENCY, AND PRESSURE IN AN OPTOACOUSTIC CELL. APPROACH: THE
                  OPTOACOUSTIC CELL WILL BE CALIBRATED USING A PIEZOELECTRIC CRYSTAL TO INDUCE PRESSURE VARIATIONS IN
                  THE CELL. CARBON DIOXIDE, SULFUR HEXAFLUORIDE, NITROUS OXIDE, ETHYLENE, VARIOUS FLUOROCARBONS AND
                  METHYLHALIDES WILL THEN BE INVESTIGATED. PARTICULAR ATTENTION WILL BE GIVEN TO GASES WHICH
                  DEACTIVATE IN A STEPWISE MANNER AND TO GASES WHICH EXHIBIT KINETIC COOLING EFFECTS.
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*PROJECT: 005787-GEOTHERMAL IMPACT - A SYSTEMS APPROACH TO MONITORING ENVIRONMENTAL IMPACTS FROM DEVELOPMENT, CONVERSION, & WASTE DISPOSAL (ABBR
TASK =JC2J -000060 **EPA=R806457 ** (GRANT)
STARTING/ COMPLETION DATE : 04/79 - 10/83 : FY80

EPA OFFICER.: RB EVANS EPA/EMSL - LAS VEGAS 702-798-225_
INVESTIGATOR.: J HESS UNIV OF NEVADA DESERT RESEARCH INST.
MILESTONES...: 10/83 -GEOTHERMAL ENVIRONMENTAL IMPACT ASSESSMENT
PROGRAM ID...: (PE-C2J) ENVIRN ASSES INPACT OF CONV & ADV ENERGY SYSTEMS
FINAL OUTPUT.: GEOTHERMAL ENVIRONMENTAL IMPACT ASSESSMENT
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-03 TOXIC SUBSTANCES CONTROL ACT
ORDIS CODES..: RECN-005787 SSIE-GMA 5835 1 EPA -R806457 ORD -RJ10B30-1080
LABN-J827B-60 PE -C2J
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE/APPROACH: A SYSTEMATIZED METHODOLOGY FOR MONITORING THE LONG TERM ENVIRONMENTAL IMPLICATIONS OF GEOTHERMAL RESOURCE DEVELOPMENT, CONVERSION AND WASTE DISPOSAL WILL BE DEVELOPED AND VALIDATED. THE RESULTANT METHODOLOGY WILL BE USEFUL FOR DEVELOPING SITE-SPECIFIC WATER, AIR SOIL AND BIOLOGIC MONITORING PLANS. THE SYSTEM WILL BE DEVELOPED USING THE ROOSEVELT HOT SPRINGS, UTAH KGRA AS DATA SOURCE. ELEMENTS OF SYSTEM DEVELOPMENT INCLUDE: 1) FAULT TREE ANALYSIS OF GEOTHERMAL FAILURE MODES; 2) ASSESSMENT AND TESTING OF PHYSICAL, CHEMICAL, AIR QUALITY, AND BIOLOGICAL MODELS; 3) DEVELOPMENT AND TESTING OF COMPUTER-BASED MONITORING PLAN DESIGN SYSTEM: AND 4) DESIGN OF SITE-SPECIFIC MONITORING PLAN FOR ROOSEVELT KGRA.

*PROJECT: 004704-GROUNDWATER MONITORING FOR GEOTHERMAL DEVELOPMENT
TASK =B827B-000920 **EPA=R806457-01 ** (GRANT)
STARTING/ COMPLETION DATE : 01/79 - 01/83 : FY79

EPA OFFICER.: R BATEMAN EPA/IERL - CINC FTS-8-595-2969
INVESTIGATOR.: JW HESS UNIV OF NEVADA DESERT RESEARCH INST.
PROGRAM ID...: (PE-827) ENV IMPACT OF CONV & ADV ENERGY SYSTEMS
MANDATE......: 10-02 CLEAN AIR ACT
10-15 SAFE DRINKING WATER ACT
ORDIS CODES..: RECN-004704 SSIE-GMA 5758 EPA -R806457-01 ORD -RB10B30-1079
PE -827
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE PURPOSE OF THIS INVESTIGATION IS TO VALIDATE AND IMPROVE A METHODOLOGY FOR DETECTING, MONITORING AND PREDICTING THE LONG-TERM EFFECTS OF GEOTHERMAL DEVELOPMENT ON THE GROUNDWATER ENVIRONMENT. APPROACH: THE OBJECTIVE WILL BE ACCOMPLISHED BY DESIGNING, IMPLEMENTING, OPERATING, AND MODIFYING A MONITORING PLAN AT THE ROOSEVELT HOT SPRINGS GEOTHERMAL RESOURCE AREA IN BEAVER COUNTY, UTAH.

*PROJECT: 005241-COMPUTER SIMULATION TO ASSESS THE ENVIRONMENTAL IMPACT OF RESIDENTIAL GROUND-WATER HEAT PUMP UTILIZATION
TASK =L832B-000004 **EPA=R806465 ** (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 08/81 : FY79

EPA OFFICER.: BD NEWPORT — EPA/ERL - ADA — FTS 8-743-2201
INVESTIGATOR.: JH LEHR — NATL WAT WELL ASSN RES FAC — WORTHINGTON — OH 43085
MILESTONES...: 08/81 -REPORT, ENVIRONMENTAL ASSESSMENT OF GROUND WATER HEAT PUMPS
PROGRAM ID...: (PE-832) TRANSPORTATION & FATE- ENERGY
FINAL OUTPUT.: ENVIRONMENTAL ASSESSMENT OF GROUND WATER HEAT PUMPS
MANDATE......: 10-99 ENERGY
ORDIS CODES..: RECN-005241 SSIE-GMA 6156 EPA -R806465 ORD -RL10B30-1079
PE -832
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO ASSESS, THROUGH APPLIED ANALYTICAL AND PHYSICAL RESEARCH, THE ENVIRONMENTAL STRESS THAT A DENSE CONCENTRATION OF GROUND-WATER GEOTHERMAL HEAT PUMPS COULD PLACE UPON A RANGE OF AQUIFER SYSTEMS IN DIFFERENT AREAS OF THE CONTINENTAL UNITED STATES. APPRROACH: DRILL AND COMPLETE ONE PUMPING WELL AND ONE DISCHARGE WELL 6 INCHES IN DIAMETER. CONSTRUCT FOUR OBSERVATION WELLS: ONE WITHIN A FEW FEET OF THE DISCHARGE WELL AND THREE WELLS SPACED AT 120 DEGREES AND 25 FEET FROM THE DISCHARGE WELL. DRILL THREE ADDITIONAL OBSERVATION WELLS 50 FEET FROM THE DISPOSAL WELL AT 120 DEGREES SEPARATION. FROM THESE WELLS A GROUND-WATER HEAT PUMP WILL BE OPERATED AND GROUND-WATER QUALITY VARIATIONS MONITORED TO DETERMINE ENVIRONMENTAL STRESS OF GROUND-WATER HEAT PUMPS.

*PROJECT: 006306-EXPOSURE OF AGRICULTURAL LABOR TO PESTICIDES
TASK =H615 -947700 **EPA=R806474 ** (GRANT)
STARTING/ COMPLETION DATE : 04/79 - 04/82 : FY79

EPA OFFICER.: RL BARON — EPA/HERL - RTP — FTS 8-629-2655
INVESTIGATOR.: UNKNOWN — UNIV OF FLORIDA — GAINESVILLE — FL 32601
PROGRAM ID...: (PE-615) HEALTH EFFECTS - PESTICIDES
MANDATE......: 20-34 DAA FOR PESTICIDE PROGRAMS
ORDIS CODES..: RECN-006306 SSIE-HZ 799477 EPA -R806474 ORD -RH10B30-2079
LABN-H615 -947700 PE -615
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: DETERMINE THE EXPOSURE OF SPRAYMEN/ALLIED WORKERS AND FRUIT PICKERS TO PESTICIDAL CHEMICALS IN THE WORKPLACE. DETERMINE THE EXTENT OF EXPOSURE AS RELATED TO RATE OF APPLICATION/WORK PRACTICE AND CHEMICAL MOIETY. COMPLETED SAMPLING OF LOADERS AND APPLICATORS OF LEAD ARSENATE AND ETHION.

*PROJECT: 006629-EXPOSURE OF AGRICULTURAL LABOR TO PESTICIDES

TASK *HC86 -947700 **EPA*R806474 ** (GRANT)
STARTING/ COMPLETION DATE : 04/79 - 04/82 : FY80

EPA OFFICER.: DAVIS   EPA/HERL - RTP   629-2601
INVESTIGATOR.: NIGG   UNIV OF FLORIDA   GAINESVILLE   FL 32601
PROGRAM ID...: (PE-C86)   HEALTH EFFECTS - PESTICIDES
MANDATE......: 10-06   FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
ORDIS CODES..: RECN-006629   SSIE-HZ 809477   EPA -R806474   ORD -RH10830-1080
PE -C86
PROJ STATUS..: PROJECT-ACTIVE   INFO-ORIGINAL   ENTERED - 06-28-80   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: DETERMINE THE EXPOSURE OF SPRAYMEN/ALLIED WORKERS AND FRUIT PICKERS TO PESTICIDAL CHEMICALS IN THE WORKPLACE. DETERMINE THE EXTENT OF EXPOSURE AS RELATED TO RATE OF APPLICATION/WORK PRACTICE AND CHEMICAL MOIETY. COMPLETED ANALYSIS OF EXPOSURE PAD SAMPLES FROM LEAD ARSENATE AND ETHION EXPOSURE STUDIES. LOCATED COOPERATORS TO STUDY EXPOSURE DURING APPLICATION OF PARAQUAT TO GOLF COURSES AND CITRUS AND OF DIQUAT TO ACQUATIC PLANTS.

*PROJECT: 004707-FATE OF HEAVY METALS DURING LANDFILL STABILIZATION OF SOLID WASTE MATERIALS WITH LEACHATE RECYCLE

TASK *CC73 -51T25A **EPA*R806498-01 ** (GRANT)
STARTING/ COMPLETION DATE : 03/79 - 04/81 : FY80

EPA OFFICER..: DR BRUNNER   EPA/MERL - CINC   FTS 8-684-7871
INVESTIGATOR.: FG POHLAND   GEORGIA INST OF TECH   SCH OF ENGINEERING
MT SUIDAN   GEORGIA INST OF TECH   SCH OF ENGINEERING
WH CROSS   GEORGIA INST OF TECH   SCH OF ENGINEERING
MILESTONES...: 08/79 -CONSTRUCTION COMPLETED
01/80 -INTERIM PROGRESS REPORT
04/81 -FINAL REPORT ON FATE OF HEAVY METALS
PROGRAM ID...: (PE-C73)   SOLID & HAZARDOUS WASTE
FINAL OUTPUT.: FINAL REPORT ON FATE OF HEAVY METALS
MANDATE......: 10-05   RESOURCE CONSERVATION AND RECOVERY ACT
10-13   SOLID WASTE DISPOSAL ACT
CURR. RESULTS: CURRENT RESULTS EXPERMINENTAL FACILITIES CONSTRUCTED 10/79
ORDIS CODES..: RECN-004707   SSIE-GMA 5870 1   EPA -R806498-01   ORD -RC10830-1080
PE -C73
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DETERMINE IF HEAVY METALS ARE MOBILIZED DURING ACID FERMENTATION OF LANDFILLED WASTE, AND IF THEY REDEPOSIT IN THE STABILIZED WASTE.APPROACH: EXPERIMENTAL LANDFILLS, 92 CM DIAMETER, WILL BE CHARGED WITH REFUSE AND INDUSTRIAL SLUDGE TO PROVIDE INCREASING LEVELS OF HEAVY METALS. THE LANDFILLS WILL BE OPERATED IN A RECYCLE MODE TO ACCELERATE BIOLOGICAL AND CHEMICAL DEGRADATION PROCESSES. WASTE MATERIALS, OFF-GASES, AND LEACHATES WILL BE ASSAYED TO OBTAIN MASS BALANCES TO VERIFY THE FATE OF HEAVY METALS.

*PROJECT: 004816-DEVELOPMENT OF GLASS ARRAY IMPACTORS FOR SEPARATION OF FIBROUS AEROSOLS

TASK *GC07 -000405 **EPA*R806518-01 ** (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 06/81 : FY80

EPA OFFICER..: J WAGMAN EPA/ESRL - RTP 919-541-3009
INVESTIGATOR.: JW GENTRY UNIV OF MARYLAND DEPT OF COMP SCI
MILESTONES....: 06/80 -INTERIM REPORT
06/81 -FINAL REPORT
PROGRAM ID....: (PE-C07) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
MANDATE.......: 10-02 CLEAN AIR ACT
ORDIS CODES...: RECN-004816 SSIE-GMA 5787 % EPA -R806518-01 ORD -RG10B30-1080
LABN-G712B-BA-101 PE -C07
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: DEVELOP A MEANS FOR SAMPLING FIBROUS AEROSOLS THAT WILL SEPARATE FIBERS FROM NON-FIBROUS OR ISOMETRIC PARTICLES AND THUS FACILITATE THE MEASUREMENT OF AIRBORNE FIBER CONCENTRATIONS; E.G., OF ASBESTOS, BY REDUCING INTERFERENCES BY BACKGROUND PARTICLES. APPROACH: BASED ON PREVIOUSLY REPORTED OBSERVATIONS BY APPLICANT AND HIS CO-WORKERS THAT FIBERS ARE ALIGNED BY FLOW GRADIENTS AS THEY APPROACH AND PASS THROUGH PARALLEL CAPILLARY ARRAYS SUCH AS NUCLEOPORE FILTERS AND POROUS GLASS DISKS OF SUFFICIENTLY LARGE PORE SIZE.

*PROJECT: 004719-ANALYSIS OF URBAN RUNOFF LOADS FROM COMBINED SEWER OVERFLOWS

TASK *CC35 -S1T068 **EPA*R806519 ** (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 10/80 : FY80

EPA OFFICER..: DC AMMON EPA/MERL - CINC FTS 8-340-6677
INVESTIGATOR.: JA MUELLER MANHATTAN COLLEGE ENV ENG & SCI DEPT
DM DITORO MANHATTAN COLLEGE ENV ENG & SCI DEPT
MILESTONES....: 12/79 -PHASE I COMPLETION: MODEL EVALUATION
12/79 -CONTINUATION FUNDING PACKAGE PROCESSED
08/80 -COMPLETION
10/80 -FINAL REPORT PUBLISHED
10/80 -METHODOLOGY MANUAL - USERS MANUAL
PROGRAM ID....: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
FINAL OUTPUT..: METHODOLOGY MANUAL, USERS MANUAL
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES...: RECN-004719 SSIE-GMA 5876 1 EPA -R806519 ORD -EC10B30-1080
LABN-C822A-S1T068 PE -C35
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: THE MAJOR OBJECTIVE OF THE PROJECT IS TO EVALUATE AND DEMONSTRATE THE ADEQUACY OF THE MASS BALANCE TECHNIQUE USING DAILY INFLUENT TREATMENT PLANT DATA TO OBTAIN ESTIMATES OF COMBINED SEWER OVERFLOWS. APPROACH: THE APPROACH TAKEN WILL BE TO QUANTIFY THE MAGNITUDE OF THE BIAS AND VARIABILITY DUE TO THE PARAMETERS AND ASSUMPTIONS USED IN APPLYING THE MASS BALANCE METHOD; EVALUATE THE ERROR ASSOCIATED WITH RUNOFF ESTIMATES; EVALUATE THE EFFECTS OF RAINFALL CHARACTERISTICS ON RUNOFF LOADS; AND INCORPORATE ANY REVISIONS IN THE EXISTING MODEL. DATA ACQUISITION AND REDUCTION PROBLEMS, SAMPLE APPLICATION, AND METHODOLOGY MANUAL DEVELOPMENT WILL BE ADDRESSED.

*PROJECT: 004869-PRECONCENTRATION METHODS FOR TRACE ELEMENT DETERMINATION

TASK *KC61 -000145 **EPA*R806520-01 ** (GRANT)
STARTING/ COMPLETION DATE : 07/79 - 09/82 : FY80

EPA OFFICER.: RV MOORE   EPA/ERL - ATHENS   FTS 8-257-3285
INVESTIGATOR.: DE LEYDEN   UNIV OF DENVER   ARTS & SCI/CHEM DEPT
MILESTONES....: 07/80 -ANNUAL PROGRESS REPORT
09/82 -FINAL REPORT
PROGRAM ID....: (PE-C61)   DRINK WATER TREATMENT & GROUND WATER PROT
MANDATE.......: 10-01   FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: PROBLEMS ENCOUNTERED IN SYNTHESIS OF DIBENZYLDI-THIOCARBAMATE. FIVE OF PRECONCENTRATION TECHNIQUES EVALUATED WITH SINGLE-ELEMENT RESPONSE CURVES, USING ENERGY DISPERSIVE X-RAY ANALYSIS. THE CONTROLLED-PORE GLASS PROCEDURE IMPROVED BY MIXING TWO BATCHES OF GLASS, PREPARED BY IMMOBILIZING ETHYLENEDIAMINE AND DITHIOCARBAMATE GROUPS RESPECTIVELY.
ORDIS CODES...: RECN-004869   SSIE-GMA 5828 1   EPA -R806520-01   ORD -RK10B20-1080
LABN-KB24D-145   PE -C61
PROJ STATUS...: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT......: OBJECTIVES: THE OBJECTIVES ARE TO EVALUATE THE MERITS OF CURRENT METHODS OF TRACE ELEMENT PRECONCENTRATION FROM NATURAL AND INDUSTRIAL WATER SAMPLES, TO MODIFY AND IMPROVE THESE METHODS, AND TO DEVELOP AND EVALUATE NEW METHODS. APPROACH: SOME SAMPLES WILL BE ANALYZED BY PLASMA EMISSION SPECTROSCOPY WITH AND WITHOUT PRECONCENTRATION. CONCENTRATES WILL BE ANALYZED BY ENERGY-DISPERSIVE, AND BY WAVELENGTH-DISPERSIVE, X-RAY SPECTROMETRY. A METHOD WILL BE RECOMMENDED FOR THE RAPID, SIMULTANEOUS, AND ACCURATE DETERMINATION OF AS MANY ELEMENTS AS POSSIBLE

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*PROJECT: 005235-MODEL IMPLEMENTATION PROGRAM - MONITORING

                TASK =LC34 -1-0054 **EPA=R806540-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 04/79 - 04/82 :   FY80
  EPA  OFFICER.: JP LAW                   EPA/ERL - ADA                FTS 8-743-2300
  INVESTIGATOR.: C  CARELLI               STATE DEPT. OF ECOLOGY       OLYMPIA                WA 98504
  PROGRAM ID...: (PE-C34 )            RENEWABLE RESOURCES -WATER QUALITY
  MANDATE......: 10-01    FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005235          SSIE-GMA  6162 1     EPA -R806540-01       ORD -RL10830-1080
                 LABN-L770A-1-54      PE  -C34
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED         ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVES: 1. EVALUATION OF AN IMHOFF CONE SAMPLING PROGRAM AS A MEANS OF MEASURING PROGRESS IN
                  IMPLEMENTATION OF 208 WATER QUALITY MANAGEMENT PLANS. 2. DETERMINATION OF MONITORING REQUIRED TO
                  RELATE STREAM WATER QUALITY TO IRRIGATION RETURN FLOW QUALITY. 3. DETERMINATION OF EFFECT OF FARMS
                  MANAGEMENT AGREEMENTS UPON WATER QUALITY. 4. CORRELATION BETWEEN TOTAL SEDIMENT CONCENTRATION AND
                  SETTLEABLE SOLIDS MEASURED WITH THE IMHOFF CONE. APPROACH: NUMEROUS SITES ACROSS A WELL DEFINED,
                  CLOSED IRRIGATED WATERSHED ARE SAMPLED WITH THE IMHOFF CONE. AT SOME OF THE SITES, TOTAL SEDIMENT
                  CONCENTRATION AND STREAM FLOW ARE ALSO MEASURED. SOIL TYPES AND MANAGEMENT PRACTICES ARE NOTED AS
                  POTENTIAL VARIABLES. MONTHLY SAMPLES ARE ANALYZED FOR NUTRIENTS AND PESTICIDES. THE VALIDITY OF
                  USING THE IMHOFF CONE WILL BE DETERMINED BY SEPARATION OF VARIABLES AND CORRELATION.


*PROJECT: 005231-REMOVAL OF SELECTED PRIORITY POLLUTANT ORGANIC COMPOUNDS FROM WATER BY
                 ACTIVATED CARBON COLUMN TREATMENT
                TASK =L610C-000064 **EPA=R806541-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 07/79 - 01/81 :   FY79
  EPA  OFFICER.: FM PFEFFER               EPA/ERL - ADA                FTS 8-743-2305
  INVESTIGATOR.: MD PIWONI                UNIV OF TEXAS                SCHOOL OF NATURAL SCIENCE
  PROGRAM ID...: (PE-610 )            INDUSTRIAL PROC. - WATER QUALITY
  MANDATE......: 10-01    FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005231          SSIE-GMA  6158       EPA -R806541-01       ORD -RL10830-1079
                 PE  -610
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL        ENTERED - UNKNOWN     UPDATED-  OCT-DEC 79
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: EXAMINE THE USE OF ACTIVATED CARBON IN REDUCING THE CONTENT OF BIOLOGICALLY RESISTANT
                  ORGANIC COMPOUNDS IN A COMBINED INDUSTRIAL WASTEWATER TREATMENT SYSTEM. APPROACH: THE INVESTIGATION
                  WILL BE CONDUCTED IN TWO STAGES: 1. CHARACTERIZE ORGANIC PRIORITY POLLUTANTS BIOREFRACTORY TO A
                  FULL-SCALE COMBINED INDUSTRIAL TREATMENT SYSTEM, AND 2. EVALUATE ADD-ON ACTIVATED CARBON ADSORPTION
                  FOR REMOVAL OF THESE PRIORITY POLLUTANTS.
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•PROJECT: 004821-EXHAUST EMISSIONS FROM A DIESEL ENGINE

TASK =G712B-BC0080 ••EPA=R806558-01 •• (GRANT)
STARTING/ COMPLETION DATE : 04/79 - 04/82 : FY79

EPA OFFICER.: JE SIGSBY — EPA/ESRL - RTP — FTS 8-629-3037
INVESTIGATOR.: TH RISBY — JOHNS HOPKINS UNIV — BALTIMORE — MD 21218
SS LESTZ — PENNSYLVANIA STATE UNIV — UNIVERSITY PARK — PA 16802
MILESTONES...: 04/79 -PROJECT INITIATION
04/80 -ANNUAL REPORT
04/81 -ANNUAL REPORT
04/82 -FINAL REPORT
PROGRAM ID...: (PE-712) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: THIS IS NEW STUDY BUT EXTENDS PREVIOUS WORK WHICH INDICATES THAT FUEL COMPOSITION IS NOT NECESSARILY THE CONTROLLING PARAMETER ON PARTICULATE CHARACTER.
ORDIS CODES..: RECN-004821 SSIE-GMA 5783 EPA -R806558-01 ORD -RG10E30-1079
PE -712
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DETERMINE BASIC DATA RELATING THE IMPACT OF FUEL AND ENGINE COMBUSTION PARAMETERS TO DIESEL PARTICULATE COMPOSITION, EMISSIONS RATES, AND BIOLOGIC ACTIVITY. APPROACH: SIMPLE FUELS WILL BE UTILIZED IN A SINGLE CYLINDER ENGINE AND MODEL COMBUSTION SYSTEMS. POST COMBUSTION DILUTION EFFECTS WILL BE MEASURED AS WELL AS PRIMARY COMBUSTION PHENOMENON. BIOLOGICAL ACTIVITY WILL BE MONITORED USING SIMPLE SYSTEMS. SURFACE CHARACTER OF THE PARTICULATE WILL BE DETERMINED. RESULTS TO DATE: THIS IS A NEW STUDY BUT EXTENDS PREVIOUS WORK WHICH INDICATES THAT FUEL COMPOSITION IS NOT NECESSARILY THE CONTROLLING PARAMETER ON PARTICULATE CHARACTER.

•PROJECT: 006649-ANTICHOLINESTERASE INSECTICIDE-INDUCED PANCREATITIS

TASK =HC86 -950400 ••EPA=R806561 •• (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 05/80 : FY80

EPA OFFICER.: TM SCOTTI — EPA/HERL - RTP — FTS 8-629-2367
INVESTIGATOR.: UNKNOWN — UNIV OF MINNESOTA — MINNEAPOLIS — MN 55455
MILESTONES...: 05/80 -FINAL REPORT
PROGRAM ID...: (PE-C86) HEALTH EFFECTS - PESTICIDES
MANDATE......: 10-06 FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
ORDIS CODES..: RECN-006649 SSIE-HZ 809504 EPA -R806561 ORD -RH10B30-1080
PE -C86
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: TO STUDY EFFECTS OF ANTICHOLINESTERASE PESTICIDES ON THE PANCREAS; TO DEFINE MECHANISM OF PANCREATITUS IF INDUCED BY THE PESTICIDES; TO IDENTIFY FACTORS INVOLVED IN CONVERSION OF INTERSTITIAL PANCREATITUS TO NECROTIZING PANCREATITUS AND TO EXAMINE NATURE AND SIGNIFICANCE OF ACINAR CELL VACUOLES NOTED IN PILOT STUDY WITH DIAZINON. NO REPORT RECEIVED THIS QUARTER.

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*PROJECT: 004756-VIRUSES IN WATER AND RECLAIMED WASTEWATER

                TASK =DC27 -3D0001 **EPA=R806563     ** (GRANT)
                STARTING/ COMPLETION DATE : 04/79 - 04/81 :   FY80
EPA  OFFICER.: EW AKIN                   EPA/HERL - CINC                  FTS 8-684-7218
INVESTIGATOR.: JL RIGGS                  ST DEPT OF HEALTH SCIENCES       BERKELEY              CA 94704
MILESTONES...: 04/80 -INTERIM REPORT ON VIRAL OCCURRENCE IN RECLAIMED WASTEWATER
               04/81 -OCCURRENCE DATA ON VIRUSES IN HIGH QUALITY WASTEWATER EFFLUENTS
PROGRAM ID...: (PE-C27 )           HEALTH EFFECTS - WATER QUALITY
FINAL OUTPUT.: OCCURRENCE DATA ON VIRUSES IN HIGH QUALITY WASTEWATER
               EFFLUENTS & IN DRINKING WATER ASSOCIATED WITH
               INFECTIOUS DISEASE OUTBREAKS
MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
               10-15      SAFE DRINKING WATER ACT
               20-12      DAA FOR WATER PROGRAM OPERATIONS
               20-13      DAA FOR DRINKING WATER
CURR. RESULTS: NO VIRUSES HAVE BEEN RECOVERED FROM 9 CHLORINATED
               TERTIARY-TREATED WASTEWATER SAMPLES.  2 OF 11 CHLORINATED
               SECONDARY-TREATED WASTEWATER SAMPLES YIELDED VIRUS IN
               PRESENCE OF 4 MG/L OF CHLORINE AND TURBIDITIES OF 12 & 38
               FTU.  VIRUSES RECOVERED FROM CONTAMINATED CREEK WATER
               INGESTED BY LITTLE LEAGUE FOOTBALL TEAM THAT EXPERIENCED
               30 CASES OF ENTERITIS.
ORDIS CODES..: RECN-004756          SSIE-GMA  5776 1      EPA -R806563          ORD -RD10830-5080
               LABN-D607D-011       PE  -C27
PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
               CATEGORY-RESEARCH    ACCESS-PUBLIC
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ABSTRACT......: OBJECTIVE: 1. TO DETERMINE THE OCCURRENCE AND CONCENTRATION OF VIRUSES IN HIGH QUALITY WASTEWATER EFFLUENTS WHERE PUBLIC CONTACT MAY OCCUR. 2. TO DETECT AND IDENTIFY VIRUSES IN WATERS WHICH ARE SUSPECTED AS THE SOURCE OF INFECTION IN WATERBORNE DISEASE OUTBREAKS. APPROACH: THE MOST SENSITIVE VIRUS RECOVERY TECHNIQUES WILL BE USED TO DETERMINE THE TOTAL VIRAL OCCURRENCE IN HIGH QUALITY WASTEWATER THAT IS REUSED. EFFLUENTS FROM TWO PLANTS WILL BE TESTED: THE TREATMENT REGIME USED IN THESE TWO PLANTS WILL BE CAREFULLY FOLLOWED. IN CONJUNCTION WITH OTHER HEALTH DEPT. PERSONNEL, WATER SAMPLES, BLOOD AND FECAL SPECIMENS WILL BE COLLECTED IMMEDIATELY AFTER THE REPORTING OF WATERBORNE OUTBREAKS WITHIN THE STATE. EFFORTS WILL THEN BE MADE TO IDENTIFY ANY VIRAL ETIOLOGICAL AGENT IN THESE MATERIALS.

*PROJECT: 004871-SIGNIFICANCE OF ANAEROBIC BIODEGRADATION OF XENOBIOTICS IN SEDIMENTS AND WATER
TASK =KC61 -000218 **EPA=R806569 ** (GRANT)
STARTING/ COMPLETION DATE : 04/79 - 06/82 : FY80

EPA OFFICER.: WC STEEN   EPA/ERL - ATHENS   FTS-8-250-3188
INVESTIGATOR.: JM TIEDJE   MICHIGAN STATE UNIV   AGRIC & NAT RES

MILESTONES...: 06/79 -LITERATURE SEARCH COMPLETED AND SELECTION OF SITES AND COMPOUNDS
03/80 -COMPLETE STUDY ON FIRST GROUP OF COMPOUNDS AND SITES
04/80 -BEGIN SECOND YEAR - ADDITIONAL COMPOUNDS AND SITES
04/81 -COMPLETE FIRST FORMULATION OF RATE EXPRESSIONS FOR ANAEROBIC DEGRA
04/81 -BEGIN TH'' YEAR OF GRANT
06/82 -FINAL REPORT AND ONE JOINT PUBLICATION ON SIGNIFICANCE OF ANAEROBI

PROGRAM ID...: (PE-C61)   DRINK WATER TREATMENT & GROUND WATER PROT

FINAL OUTPUT.: FINAL REPORT AND ONE JOINT PUBLICATION ON SIGNIFICANCE OF ANAEROBIC DEGRADATION IN SEDIMENTS AND WATER.

MANDATE......: 10-01   FEDERAL WATER PO...TION CONTROL ACT

CURR. RESULTS: SEVERAL SUB. CHLORINATED BENOIC ACIDS WERE EVALUATED UNDER ANAEROBIC CONDITIONS FOR ONE OF THE SUB. BENZOIC ACID AN AMINO DICHOLRO ACID THERE APPEARS TO BE A THRESHOLD CON. FOR DEGRADATION FAND ENRICHMENT BY THE DEGRADING POPULATION ALSO A MAJOR PRODUCT ACCUMULATION OCCURED DURING DEGRADATION TENTATIVELY POINTING TO AN EXAMPLE OF ANAEROBIC COMETABOLISM

ORDIS CODES..: RECN-004871   SSIE-GMA 5830 1   EPA -R806569   ORD -RK10B30-1080
PE -C61

PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THIS MICROBIAL DEGRADATION PROJECT IS PART OF A LARGER RESEARCH EFFORT TO STUDY THE FATE OF SUBSTANCES ENTERING THE ENVIRONMENT. AN EVALUATION WILL BE MADE OF THE SIGNIFICANCE OF ANAEROBIC DEGRADATION IN SEDIMENTS AND WATER. THE PRIMARY OBJECTIVES ARE TO DETERMINE THE RATES OF ANAEROBIC DEGRADATION OF TOXICS IN NATURAL SYSTEMS, AND ENVIRONMENTAL PARAMETERS EFFECTING THIS PROCESS. RESULTING INFORMATION SHOULD LEAD TO THE DEVELOPMENT OF KINETIC EXPRESSIONS DESCRIBING ANAEROBIC DEGRADATION IN NATURAL ECOSYSTEMS. APPROACH: NATURAL WATER AND SEDIMENTS WILL BE SAMPLED AND THE ANAEROBIC DEGRADATION OF SELECTED MODEL COMPOUNDS (PESTICIDES AND TOXIC) DETERMINED. ANAEROBIOSIS WILL BE EXPERIMENTALLY CONTROLLED BY USE OF A HUNGATE GASSING APPARATUS AND MONITORED BY MEASUREMENT OF METHANE PRODUCTION AND DISAPPEARANCE OF PARENT COMPOUNDS.

·PROJECT: 005232-CRITERIA TO PREDICT REMOVALS OF SELECTED PRIORITY POLLUTANTS IN COMBINED
TREATMENT SYSTEMS
TASK =L610B-000065 ··EPA=R806582-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 12/80 : FY79

EPA OFFICER.: TE SHORT EPA/ERL - ADA FTS 8-743-2234
INVESTIGATOR.: JW PATTERSON ILLINOIS INST OF TECH ENG DEPT
PROGRAM ID...: (PE-610) INDUSTRIAL PROC. - WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: GRANTEE HAS SUBMITTED DRAFT WORK PLAN
ORDIS CODES..: RECN-005232 SSIE-GMA 6157 EPA -R806582-01 ORD -RL10B30-1079
LAEN-L610C-000065 PE -610
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DEVELOP AREAWIDE PRETREATMENT AND/OR RESOURCE ALTERNATIVES BASED ON EXISTING DATA AND LIMITED EXPERIMENTAL EFFORT. APPROACH: I. IDENTIFY AND OBTAIN EXISTING DATA BASES: II. ASSESS AND EVALUATE DATA BASES: III. LIMITED EXPERIMENTAL EFFORT TO LINK DATA BASES; AND IV. DEVELOP CRITERIA FOR EACH SELECTED PRIORITY POLLUTANT.

·PROJECT: 005098-EVALUATION OF RISKS, ENERGY COSTS, AND ASSOCIATED ECONOMIC FACTORS OF
WASTEWATER DISINFECTION ALTERNATIVES
TASK =CC35 -S3TA24 ··EPA=R806586-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 01/81 : FY80

EPA OFFICER.: AD VENOSA EPA/MERL - CINC FTS-8-684-7668
INVESTIGATOR.: WR CHAPPELL UNIV OF COLORADO DEPT. OF PHYSICS
DW HUBLY UNIV OF COLORADO DEPT. OF PHYSICS
MILESTONES...: 10/79 -FY '80 BUDGET COMMITMENT
01/81 -FINAL REPORT PUBLISHED
PROGRAM ID...: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
MANDATE......: 30-99 CIVIL ENGINEEERING
ORDIS CODES..: RECN-005098 SSIE-GMA 6232 1 EPA -R806586-01 ORD -RC10B30-3080
PE -C35
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OVERALL OBJECTIVE WILL BE TO DEVELOP A DOCUMENT USABLE BY DECISION MAKERS TO ENABLE RATIONAL DECISIONS ON IMPLEMENTATION OF WASTERWATER DISINFECTION ALTERNATIVES. DECISIONS WILL BE BASED ON THE RELATIVE RISKS, BENEFITS, AND COSTS TO PEOPLE, PROPERTY, AND THE ENVIRONMENT. COMPREHENSIVE DESCRIPTIONS OF THE IDENTIFIABLE CONSEQUENCES ASSOCIATED WITH CHLORINE/DECHLORINATION, OZONE, AND UV LIGHT INVOLVING THREATS TO HUMAN HEALTH, AND TERRESTRIAL AND AQUATIC ECOSYSTEMS WILL BE PRESENTED. APPROACH: PRODUCE GRAPHICAL, MATHEMATICAL, AND/OR MATRIX MODELS PREDICTING VARIABILITY OF THE ALTERNATIVES IN ACHIEVING VARIOUS DISINFECTION LEVELS AND RISKS ARISING FROM TRANSPORTATION AND USE OF DISINFECTANTS AS WELL AS NOT ACHIEVING DISNIFECTION LEVELS. EVALUATIONS WILL INVOLVE COST AND ENERGY COMPARISONS, RELIABILITY, AND SENSITIVITY OF WASTE TREATMENT COSTS TO RISK AND ENERGY PLANNING AND DESIGN CRITERIA.

•PROJECT: 004793-ANALYSIS OF THE RELATIONSHIPS BETWEEN HAZE, OZONE, SULFATE, AND TRANSPORT-HOST
TASK =GC05 -000221 ••EPA=R806593-01 •• (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 05/80 : FY80

EPA OFFICER..: WE WILSON EPA/ESRL - RTP FTS 8-629-2582
INVESTIGATOR.: PJ LIOY NEW YORK UNIV INST OF ENV MED
MILESTONES...: 05/80 -ORD REPORT ON EFFECTS OF PRECURSOR EMISSIONS, AND SURSEQUENT TRAN
PROGRAM ID...: (PE-C05) TRANS. AND FATE - AIR
FINAL OUTPUT.: REPORT ON EFFECTS OF PRECURSOR EMISSIONS, AND SUBSEQUENT TRANSPORT AND TRANSFORMATION ON EPISODES IN NEW YORK AREA.
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: AN INTERIM INFORMAL REPORT WAS PREPARED SHOWING THE ASSOCIATION BETWEEN SULFATE LEVELS AT DISCRETE SAMPLING POINTS AND REGIONAL PATTERNS OF CONCURRENT AND PRIOR ELEVATED ZONE VALUES.
ORDIS CODES..: RECN-004793 SSIE-GMA 5813 1 EPA -R806593-01 ORD -RG10B30-1080
LABN-G603A-AA-121 PE -C05
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO FURTHER DEVELOP UNDERSTANDING OF THE RELATIONSHIPS BETWEEN POLLUTANT SOURCES, LONG-RANGE TRANSPORT AND TRANSFORMATION AND THE RESULTANT EFFECTS ON AIR QUALITY, WITH EMPHASIS ON EPISODIC CONDITIONS OF HIGH OZONE AND SULFATE VALUES OVER THE GREATER NEW YORK REGION. APPROACH: EXISTENT DATA WILL BE COLLECTED AND ANALYZED TO BETTER DESCRIBE EFFECTS OF SOX, NOX, AND HC EMISSIONS AND CONCURRENT TRANSPORT ON HAZE, SULFATE, AND OZONE LEVELS DURING EPISODIC CONDITIONS OVER THE NEW YORK AREA, WHERE AN EXTENSIVE SET OF MONITORING DATA IS AVAILABLE.

•PROJECT: 005188-MODEL SELECTION AND VALIDATION

TASK =GC05 -000279 ••EPA=R806593-01 •• (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 09/81 : FY80

EPA OFFICER..: LE NIEMEYER EPA/ESRL - RTP 919-541-4541
INVESTIGATOR.: KC SPENGLER AMERICAN METEOROLOGICAL SOC BOSTON MA 02108
MILESTONES...: 09/80 -PROJECT REPORT
09/81 -FINAL REPORT
09/81 -RECOMMENDATIONS FOR AIR QUALITY MODEL SELECTION AND VALIDATION CRITERIA
PROGRAM ID...: (PE-C05) TRANS. AND FATE - AIR
FINAL OUTPUT.: RECOMMENDATIONS FOR AIR QUALITY MODEL SELECTION AND VALIDATION CRITERIA.
MANDATE......: 10-02 CLEAN AIR ACT
20-23 DAA FOR AIR QUALITY PLANNING AND STANDARDS
ORDIS CODES..: RECN-005188 SSIE-GMA 6121 1 EPA -R806593-01 ORD -RG10B30-5080
LABN-G603A-AB-057 PE -C05
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THE PROJECT IS TO PROVIDE TECHNICAL ASSISTANCE IN SELECTING AND VALIDATING AIR QUALITY MODELS FOR REGULATORY APPLICATIONS. APPROACH: THE EPA GUIDELINE ON AIR QUALITY MODELS WILL BE REVIEWED AND CHANGES RECOMMENDED. AIR QUALITY MODELS SUGGESTED FOR USE BY EPA WILL BE REVIEWED AND RECOMMENDATIONS MADE ON MINIMUM ACCEPTABLE CRITERIA FOR MODEL SELECTION AND VALIDATION, AND THE DATA BASE REQUIREMENTS FOR MODEL USE WILL BE EVALUATED AND THE MINIMUM REQUIREMENTS RECOMMENDED.

·PROJECT: 004887-FLUX OF ORGANIC TOXINS AND MAJOR NUTRIENTS IN LARGE LAKE SYSTEMS

TASK =NC30 -000048 ··EPA=R806597-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 04/79 - 03/82 : FY80

EPA OFFICER.: VJ BIERMAN EPA/ERL - DULUTH 313-675-5000
INVESTIGATOR.: VE SMITH CRANBROOK INST. OF SCIENCE BLOOMFIELD HILLS MI 48013
MILESTONES...: 03/82 -FINAL REPORT
PROGRAM ID...: (PE-C30) GREAT LAKES PROGRAM
FINAL OUTPUT.: FINAL REPORT
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-004887 SSIE-GMA 5855 1 EPA -R806597-01 ORD -RN10B30-1080
PE -C30
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO STUDY THE MOVEMENT AND FATE OF TOXIC ORGANIC SUBSTANCES, PRINCIPALLY CHLOROCARBONS, IN SAGINAW BAY, LAKE HURON, AND LAKE ERIE. APPROACH: COLLECTION AND ANALYSIS OF SAMPLES OF WATER, SUSPENDED PARTICLES, PHYTOPLANKTON, ZOOPLANKTON AND FISH.

*PROJECT: 005228-EFFECT OF AGRICULTURAL LAND USE PRACTICES ON STREAM WATER QUALITY - I. FIELD-TO-STREAM PROCESSES
TASK =KC34 -000470 **EPA=R806603-01 ** (GRANT)
STARTING/ COMPLETION DATE : 01/79 - 10/83 : FY80

EPA OFFICER.: CN SMITH — EPA/ERL - ATHENS — FTS 8-250-3565

INVESTIGATOR.:
- HP JOHNSON — IOWA STATE UNIV — DEPT. OF AGRI. ENGIN.
- JL BAKER — IOWA STATE UNIV — DEPT. OF AGRI. ENGIN.
- CE ANDERSON — IOWA STATE UNIV — DEPT. OF AGRI. ENGIN.

MILESTONES...:
- 01/80 -COMPILE AND PUBLISH HISTORICAL DATA FROM FORMER GRANT NO. R804102
- 01/81 -ANNUAL REPORT
- 01/81 -ANNUAL REPORT--PRELIMINARY USER MANUAL
- 10/83 -FINAL REPORT--PROJECT DETAILS/RESULTS

PROGRAM ID...: (PE-C34) RENEWABLE RESOURCES -WATER QUALITY

FINAL OUTPUT.: PROJECT DETAILS AND RESULTS

MANDATE......:
- 10-01 FEDERAL WATER POLLUTION CONTROL ACT
- 20-11 DAA FOR WATER PLANNING AND STANDARDS
- 20-R07 EPA REGION VII

CURR. RESULTS: MEETINGS HELD WITH VARIOUS GROUPS INVOLVING FEDERAL AND STATE AGENCIES, AND LOCAL FARMERS TO DEVELOP OVERALL PROJECT WORK PLAN.A RUNOFF EVENT OCURRED IN JAN. 80 FROM A FROZEN SOIL CONDITION THAT RESULTED IN HIGH LOSSES OF PHOSPHORUS RUNOFF CONCENTRATION OF ABOUT 2PPM. SNOW MELT HAS ALREADY OCCURED AND SAMPLES WERE COLLECTED FROM ALL SAMPLES WERE COLLECTED FROM ALL SAMPLING STATIONS.

ORDIS CODES..: RECN-005228 SSIE-GMA 6171 1 EPA -R806603-01 ORD -RK10B30-5080
PE -C34

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OVERALL OBJECTIVE OF THIS PROJECT, WHICH WAS SELECTED AS FIELD EVALUATION PROJECT (FEP), IS TO MEASURE AND RELATE THE EFFECT OF BEST MANAGEMENT PRACTICES (BMPS) SUCH AS CONSERVATION TILLAGE, TERRACES, CONTOURING, AND GRASS FILTERS TO EROSION, SEDIMENTATION, AND MOVEMENT OF NUTRIENTS AND PESTICIDES FROM THE FIELD TO THE STREAM. THE FINAL PRODUCT FROM THIS STUDY WILL BE A COMPREHENSIVE DATA BASE TO RELATE AGRICULTURAL NONPOINT SOURCE LOADS AS A FUNCTION OF BMP AND THEIR RESULTING IMPACT ON RECEIVING WATER QUALITY. APPROACH: DATA WILL BE COLLECTED OVER A FIVE YEAR PERIOD FROM A 20 SQUARE MILE BASIN ALREADY PARTIALLY INSTRUMENTED. THIS PROJECT WILL BUILD FROM THE EXCELLENT DATA BASE DEVELOPED DURING A THREE YEAR PROJECT (GRANT NO. R-804102). BMPS WILL BE APPLIED TO SELECTED PORTIONS OF THE WATERSHED. RAINFALL AND RUNOFF WILL BE MEASURED AT SEVERAL LOCATIONS. SAMPLES OF SURFACE RUNOFF FROM INDIVIDUAL FIELDS (5 HA) AND SMALL WATERSHEDS UP TO THE 20 SQUARE MILE WATERSHED WILL BE ANALYZED FOR SEDIMENT, NUTRIENT AND PESTICIDES.

*PROJECT: CO5183-REGIONAL SCALE HAZINESS - ORIGIN, SPATIAL-TEMPORAL DISTRIBUTIONS, PROPERTIES AND EFFECTS ON ATMOSPHERIC RADIATION
TASK =GC05 -000218 **EPA=R806606-01 ** (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 09/82 : FY80

EPA OFFICER.: WE WILSON EPA/ESRL - RTP FTS 8-629-2582
INVESTIGATOR.: RB HUSAR WASHINGTON UNIV ST LOUIS MO 63130
MILESTONES...: 06/79 -SITES BECOME OPERATIVE
09/79 -REPORT ON DATA BASE WITH 10 YEARS OF ISOPLETHS
05/80 -PROGRESS REPORT ON SULFATES
09/80 -PROGRESS REPORT ON VISIBILITY TRENDS
09/82 -REPORT ON VISIBILITY TRENDS AND SULFURIC ACID MEASUREMENTS
PROGRAM ID...: (PE-C05) TRANS. AND FATE - AIR
FINAL OUTPUT.: REPORT ON VISIBILITY TRENDS AND SULFURIC ACID MEASUREMENTS.
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-005183 SSIE-GMA 6117 1 EPA -R806606-01 ORD -RG10B30-1080
PE -C05
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVES: 1) TO EXAMINE THE RELATIONSHIP BETWEEN PARTICULATE SULFUR CONCENTRATIONS, ACIDITY, FINE PARTICULATE MASS CONCENTRATION, LIGHT SCATTERING, AIR MASS HISTORY, TIME OF DAY AND SEASON. 2) TO STUDY THE ORIGIN, SPATIAL AND TEMPORAL TRENDS OF REGIONAL SCALE HAZINESS. APPROACH: 1) ACIDITY OF FINE PARTICLE SULFUR COMPOUNDS WILL BE MONITORED IN ST. LOUIS, MO. AND UNIVERSITY PARK, PA. USING A FLAME PHOTOMETRIC PARTICULATE SULFUR MONITOR COMBINED WITH DIFFERENTIAL THERMAL ANALYSIS. 2) METEOROLOGICAL DATA OF THE NATIONAL WEATHER SERVICE WILL BE USED TO STUDY REGIONAL HAZINESS.

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*PROJECT: 005383-REGIONAL SCALE HAZINESS - ORIGIN, SPATIAL-TEMPORAL DISTRIBUTIONS,
                 PROPERTIES AND EFFECTS ON ATMOSPHERIC RADIATION
                  TASK =GC05 -000201 **EPA=R806606-01S1** (GRANT)
                  STARTING/ COMPLETION DATE : 05/79 - 09/82 :   FY80
 EPA  OFFICER.: WE WILSON             EPA/ESRL - RTP          FTS 8-629-2582
 INVESTIGATOR.: RB HUSAR              WASHINGTON UNIV         ST LOUIS             MO 63130
 MILESTONES...: 06/79 -SITES BECOME OPERATIVE
                09/79 -REPORT ON DATA BASE WITH 10 YEARS OF ISOPLETHS
                05/80 -PROGRESS REPORT ON SULFATES
                09/80 -PROGRESS REPORT ON VISIBILITY TRENDS
                09/82 -REPORT ON VISIBIL T  TRENDS AND SULFURIC ACID MEASUREMENTS
 PROGRAM ID...: (PE-C05 )            TRANS. AND FATE - AIR
 FINAL OUTPUT.: REPORT ON VISIBILITY TRENDS AND SULFURIC ACID MEASUREMENTS
 MANDATE......: 10-02     CLEAN AIR ACT
 ORDIS CODES..: RECN-005383         SSIE-GMA  6333 1     EPA -R806606-01S1     ORD -RG10B30-1080
                PE  -C05
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED         ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
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 ABSTRACT.....: OBJECTIVE: 1) TO EXAMINE THE RELATIONSHIP BETWEEN PARTICULATE SULFUR CONCENTRATIONS, ACIDITY, FINE
                 PARTICULATE MASS CONCENTRATION, LIGHT SCATTERING, AIR MASS HISTORY, TIME OF DAY AND SEASON. 2) TO
                 STUDY THE ORIGIN, SPATIAL AND TEMPORAL TRENDS OF REGIONAL SCALE HAZINESS. APPROACH: 1) ACIDITY OF
                 FINE PARTICLE SULFUR COMPOUNDS WILL BE MONITORED IN ST. LOUIS, MO. AND UNIVERSITY PARK, PA. USING A
                 FLAME PHOTOMETRIC PARTICULATE SULFUR MONITOR COMBINED WITH DIFFERENTIAL THERMAL ANALYSIS. 2)
                 METEOROLOGICAL DATA OF THE NATIONAL WEATHER SERVICE WILL BE USED TO STUDY REGIONAL HAZINESS.
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·PROJECT: 005135-EFFECTS OF LEAD AND ORGANO-TIN COMPOUNDS ON ENERGY METABOLISM AND ION TRANSPORT
TASK =DC60 -004002 ++EPA=R806616-01 ++ (GRANT)
STARTING/ COMPLETION DATE : 12/79 - 06/81 : FY80

EPA OFFICER.: PT MCCAULEY EPA/HERL - CINC FTS 8-684-7444
INVESTIGATOR.: GD VAN ROSSUM TEMPLE UNIV SCH OF MED/PHARM DEPT
J O'NEILL TEMPLE UNIV SCH OF MED/PHARM DEPT

MILESTONES...: 12/79 -QUARTERLY REPORT
07/80 -QUARTERLY REPORT
12/80 -QUARTERLY REPORT
06/81 -DETERMINE MITOCHONDRIAL SENSITIVITY IN SPECIFIC TISSUES TO LEAD AND DI-TRIBUTYL

PROGRAM ID...: (PE-C60) HEALTH EFFECTS - DRINKING WATER

FINAL OUTPUT.: DETERMINE MITOCHONDRIAL SENSITIVITY IN SPECIFIC TISSUES TO LEAD AND DI-TRIBUTYL TINS.

MANDATE......: 10-15 SAFE DRINKING WATER ACT

CURR. RESULTS: TRIBUTYL TIN IN MILLIMETER CONCENTRATION INHIBITED RESPIRATION OF KIDNEY CORTEX SLICES BY 25% AND SLIGHTLY DECREASED K+ ACCUMULATION. AT 10-6 TO 10-4 TRIBUTYL TIN THERE WAS A 25% REDUCTION IN CL- EXTRUSION.

ORDIS CODES..: RECN-005135 SSIE-GMA 6249 1 EPA -R806616-01 ORD -RD10B30-1080
LABN-D823B-007C PE -C60

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO DETERMINE THE FOLLOWING ASPECTS OF LEAD (PB) TOXICITY IN KIDNEYS: 1) THE POINT AT WHICH OXIDATIVE PHOSPHORYLATION IS INHIBITED IN MITOCHONDRIA; 2) THE EFFECTS ON ION TRANSPORT ESPECIALLY CALCIUM ION TRANSPORT IN KIDNEY CORTEX INNER MITOCHONDRIAL MEMBRANE; 3) THE ULTRASTRUCTURAL CONSEQUENCES: TO DETERMINE THE SAME PARAMETERS USING DI- AND TRIBUTYLTIN CHLORIDE IN LIVER. TO DEVELOP A PROGRAMMED PLATING PROCEDURE FOR ANODIC STRIPPING VOLTAMMETRY TO ASSAY PB. APPROACH: IN VIVO AND IN VITRO EXPOSURE TO THE TOXINS WILL ACCOMPANY ISOLATED MITOCHONDRIA AND TISSUE SLICE ANALYSIS OF ION TRANSPORT (RADIOLABELED TRACER TECHNOLOGY) AND OXIDATIVE PHOSPHORYLATION ANALYSIS (BY COMPARISON TO AND USE OF SPECIFIC INHIBITING AGENTS).

*PROJECT: 005117-A STUDY OF INSITUFORM AND OTHER SEWER REHABILITATION TECHNIQUES

TASK *CC35 -S1T070 **EPA*R806625 ** (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 10/82 : FY80

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EPA OFFICER..: R TURKELTAUB        EPA/MERL - CINC                 201-321-6738
INVESTIGATOR.: FT DRIVER           DRIVER SIMMONS & ASSOC CONS     ROCKFORD       IL 61111
               MR OLSON            DRIVER SIMMONS & ASSOC CONS     ROCKFORD       IL 61111
               MG MCGAUHEY         CITY WATER POLLUTION CO         HAGERSTOWN     MD 21740
MILESTONES...: 02/80 -COMPLETE SURVEY OF INSITUFORM INSTALLATIONS
               04/80 -SUBMIT PREL. DRAFT OF REPORT 1 SURVEY OF INSITUFORM INSTALLATIONS
               08/80 -SUBMIT FINAL OF REPORT 1
               04/81 -COMPLETE SEWER REHABILITATION
               08/81 -SUBMIT PREL. DRAFT OF REPORT 2 VOL. I EVALUATIONS OF THE REHAB. TECH
               12/81 -SUBMIT FINAL OF REPORT 2
               06/82 -SUBMIT PREL. DRAFT OF REPORT 2 VOL. II-FOLLOW-UP EVALUATIONS
               10/82 -REPORT 2 VOL. II
PROGRAM ID...: (PE-C35 )           WASTEWATER SYSTEMS CONTROL TECHNOLOGY
FINAL OUTPUT.: REPORT 2, VOL II.
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
               20-12     DAA FOR WATER PROGRAM OPERATIONS
ORDIS CODES..: RECN-005117        SSIE-GMA 6228 1     EPA -R806625        ORD -RC10E30-5080
               LABN-C822A-S1T70   PE  -C35
PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED        ENTERED - UNKNOWN   UPDATED- 05-29-80
               CATEGORY-RESEARCH  ACCESS-PUBLIC
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ABSTRACT......: OBJECTIVE: TO TRY TO ESTABLISH THE FEASIBILITY AND EFFECTIVENESS OF RELINING SEWERS IN NEED OF REHABILITATION WITH INSITUFORM. TO COMPARE INSITUFORM WITH OTHER REHABILITATION TECHNIQUES ESTABLISHING COST, INSTALLATION PROCEDURES AND ENVIRONMENTAL EFFECTS OF EACH. APPROACH: IT IS PLANNED TO STUDY SEWER SECTIONS SCHEDULED FOR REHABILITATION BEFORE, DURING AND AFTER THE REPAIR. THE STUDY WILL INCLUDE PHYSICAL CHARACTERISTICS OF THE SEWER SECTIONS, AND AREA ADJACENT WHICH IS AFFECTED BY THE SEWER AND ITS REHABILITATION. THE DATA GATHERED DURING THE STUDY WILL BE USED TO COMPILE A REPORT WHICH SHOULD HELP MUNICIPALITIES, CONSULTANTS AND PUBLIC AGENCIES IN THE REVIEW AND SELECTION OF REHABILITATION METHODS.

-PROJECT: 001676-FIELD STUDY OF BIOGENIC SULFUR GASES AND PARTICULATES IN INLAND WATERS

TASK -G603A-AA-145 --EPA-R806628-01 -- (GRANT)
STARTING/ COMPLETION DATE : 06/76 - 04/80 : FY79

EPA OFFICER..: LL SPILLER | EPA/ESRL - RTP | FTS 8-629-2127

INVESTIGATOR.: DR HITCHCOCK | HITCHCOCK ASSOCIATES | FARMINGTON | CT 06032
D NATUSCH | COLORADO STATE UNIV | DEPT OF AG & CHEM ENG

MILESTONES....: 06/79 -EQUIPMENT AND SUPPLY ACQUISITION
08/79 -ROCHESTER, NY SAMPLING
01/80 -SAMPLE ANALYSIS
04/80 -FINAL REPORT

PROGRAM ID....: (PE-603) TRANS. AND FATE -AIR

MANDATE.......: 10-02 CLEAN AIR ACT
30-99 AEROSOL RESEARCH

CURR. RESULTS: DATA IMPLY THAT REGARDLESS OF AIR MASS TRAJECTORY, EXCESS SULFATE WAS BIOGENIC; MARINE BIOGENIC SULFATE CAN BE VERY ACID IMMEDIATELY AFTER FORMATION.

ORDIS CODES...: RECN-001676 | SSIE-GMA 5179 1 | EPA -R806628-01 | ORD -RG10B30-5079
LABN-G603A-AA-119 | PE -603

PROJ STATUS...: PROJECT-ACTIVE | INFO-UPDATED | ENTERED - UNKNOWN | UPDATED- JUL-SEP 79
CATEGORY-RESEARCH | ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: ATMOSPHERIC AEROSOLS WILL BE INVESTIGATED, SPECIFICALLY THE PROPERTIES THAT MAY FACILITATE THE OXIDATION OF BIOGENIC SULFUR GASES TO ACID SULFATE PARTICLES. APPROACH: PREVIOUS STUDIES HAVE SHOWN THAT BACTEROGENIC SULFIDES ARE VERY RAPIDLY OXIDIZED TO SULFURIC ACID AEROSOLS IN COASTAL LOCATIONS. BIOGENIC SULFIDE CONCENTRATION UP TO 20-30 MICROGRAM/M3 HAS BEEN OBSERVED. THE PROPOSED WORK WILL CENTER ON AN INLAND LOCATION.

*PROJECT: 004803-ATMOSPHERIC MEASUREMENTS OF FORMALDEHYDE AND HYDROGEN PEROXIDE

TASK *G603A-AD-023 **EPA*R806629-01 ** (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 08/82 : FY79

EPA OFFICER.:	BW GAY	EPA/ESRL - RTP	FTS 8-629-2830
INVESTIGATOR:	G KOK	HARVEY MUDD COLLEGE	DEPT. OF CHEMISTRY

MILESTONES...: 06/80 -INTERIM REPORT ON FORMALDEHYDE MEASUREMENTS
08/81 -INTERIM REPORT ON AMBIENT AIR MEASUREMENTS
08/82 -ORD FINAL REPORT ON FORMALDEHYDE HYDROGEN PEROXIDE AND OTHER

PROGRAM ID...: (PE-603) TRANS. AND FATE -AIR

FINAL OUTPUT: REPORT ON FORMALDEHYDE HYDROGEN PEROXIDE AND OTHER POLLUTANT MEASUREMENTS.

MANDATE.......: 10-02 CLEAN AIR ACT

CURR. RESULTS: CHEMILUMINESCENCE METHOD DEVELOPED WHICH MEASURES AMBIENT CONCENTRATIONS OF HYDROGEN PEROXIDE. SYSTEM BEING DEVELOPED WHICH MEASURES FORMALDEHYDE BUT SENSITIVITY NEEDS TO BE INCREASED TO MEASURE LOW AMBIENT AIR CONCENTRATION.

ORDIS CODES...:	RECN-004803	SSIE-GMA 5812	EPA -R806629-01	ORD -RG10830-1079
	PE -603			
PROJ STATUS...:	PROJECT-ACTIVE	INFO-ORIGINAL	ENTERED - UNKNOWN	UPDATED- JUL-SEP 79
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT ....: OBJECTIVE: TO MEASURE FORMALDEHYDE, HYDROGEN PEROXIDE, AND OTHER POLLUTANTS IN THE AMBIENT ATMOSPHERE. TO IMPROVE THE DETECTION SENSITIVITY OF A CHEMILUMINESCENT TECHNIQUE FOR FORMALDEHYDE, AND CARRY OUT A COMPARISON STUDY OF FORMALDEHYDE MEASUREMENTS USING LPIR AND WET CHEMICAL METHODS. TO MEASURE FORMALDEHYDE AND HYDROGEN PEROXIDE IN HYDROGEN AND GASOHOL FUELED VEHICLES. APPROACH: AMBIENT AIR MEASUREMENTS OF HYDROGEN PEROXIDE AND FORMALDEHYDE WILL BE MADE WITH THE RECENTLY DEVELOPED CHEMILUMINESCENT METHODS. COMPARISONS OF FORMALDEHYDE MEASUREMENTS WILL BE MADE WITH CHEMILUMINESCENT, WET CHEMICAL, AND LPIR METHODS. RESULTS TO DATE: A CHEMILUMINESCENCE METHOD HAS BEEN DEVELOPED WHICH MEASURES AMBIENT CONCENTRATIONS OF HYDROGEN PEROXIDE. A SYSTEM IS BEING DEVELOPED THAT MEASURES FORMALDEHYDE BUT ITS SENSITIVITY NEEDS TO BE INCREASED TO MEASURE LOW AMBIENT AIR CONCENTRATIONS.

·PROJECT: 004904-FEEDING, REPRODUCTION & HABITAT SELECTION OF LOBSTER (HOMARUS AMERICANUS) - EFFECTS OF DRILLING MUD IN LABORATORY & FIELD
TASK =0608C-000106 **EPA=R806630 ** (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 05/81 : FY79

EPA OFFICER..: NL RICHARDS — EPA/ERL -GULF BREEZE — FTS 8-686-9011
INVESTIGATOR.: J ATEMA — BOSTON UNIV — LIBERAL ARTS/BIOL DEPT
MILESTONES...: 05/81 -REPORT
PROGRAM ID...: (PE-608) ECOLOGICAL PROCESSES AND EFFECTS
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-02 CLEAN AIR ACT
10-11 MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT
20-R01 EPA REGION I
ORDIS CODES..: RECN-004904 SSIE-GMA 5842 EPA -R806630 ORD -R010B30-5079
PE -608
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVES: DETERMINE THE BIOLOGICALLY SIGNIFICANT EFFECTS OF CHEMICAL POLLUTANTS ON BEHAVIOR OF MARINE ANIMALS; EFFECTS OF DRILLING MUD ON FEEDING, MOLTING, MATING, PREDATOR ESCAPE, SHELTER BEHAVIOR, AND SUBSTRATE SELECTION OF LOBSTERS. APPROACH: THE RESEARCH WILL BE ACHIEVED BY TWO KINDS OF RESEARCH: (1) CONTROLLED LABORATORY EXPERIMENTS AND (2) SEMINATURAL ENVIRONMENT AND FIELD OBSERVATIONS. TOXICITY TESTS FOR SUB-LETHAL EFFECTS WILL BE COMPLETED.

·PROJECT: 005112-REMOVAL OF ORGANIC PRIORITY POLLUTANTS BY VOLATILIZATION DURING WASTEWATER TREATMENT
TASK =CC36 -S5AE11 **EPA=R806631-01 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 05/81 : FY80

EPA OFFICER..: P WARNER — EPA/MERL - CINC — FTS-8-684-7666
INVESTIGATOR.: PV ROBERTS — STANFORD UNIV — CIV ENG DEPT
MILESTONES...: 05/81 -REPORT OF FINDINGS
PROGRAM ID...: (PE-C36) URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005112 SSIE-GMA 6218 1 EPA -R806631-01 ORD -RC10B30-1080
PE -C36
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROJECT IS TO EVALUATE THE REMOVAL OF ORGANIC PRIORITY POLLUTANTS FROM WASTEWATER BY THE MECHANISM OF STRIPPING DURING AERATION. APPROACH: THE AVAILABLE INFORMATION WILL BE ASSEMBLED AND EVALUATED. VAPOR-LIQUID EQUILIBRIA WILL BE MEASURED AND RATES OF VOLATILIZATION OF SELECTED PRIORITY POLLUTANTS WILL BE MEASURED RELATIVE TO DISSOLVED OXYGEN DISSOLUTION AND EVOLUTION OF A RADIOACTIVE GAS TRACER. BUBBLE COLUMN EXPERIMENT AND LARGE-SCALE AERATION TESTS WILL BE USED TO DEVELOP AND VERIFY A MODEL FOR THE REMOVAL OF VOLATILE PRIORITY POLLUTANTS BY STRIPPING DURING AERATION.

-PROJECT: 006660-CHEMICAL CARCINOGEN INDUCED NEOPLASTIC TRANSFORMATION OF HUMAN EPITHELIAL CELLS
TASK -HC1T -989300 --EPA-R806638 -- (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 09/82 FY80

EPA OFFICER..: S NESNOW EPA/HERL - RTP FTS 8-629-2693
INVESTIGATOR.: UNKNOWN OHIO STATE UNIV COLUMBUS OH 43212

MILESTONES...:
- 09/80 -LUNG EPITHELIAL RESPONSE TO B(A)P
- 11/80 -LYMPHOCYTE PMA CO-INCUBATION
- 03/80 -FIBROBLAST SYNCHRONIZED AS HUMAN FORESKIN
- 03/81 -IDENTIFICATION OF METABOLITES IN MEMBRANE NUCLEUS
- 04/81 -IDENTIFICATION OF LUNG FIBROBLAST PROTEIN COMPLEX
- 12/82 -TWO STAGES OF DNA SYNTHESIS IN LUNG EPITH CELLS
- 05/83 -FINAL REPORT

PROGRAM ID...: (PE-C1T) HEALTH EFFECTS - TOXICS
MANDATE......: 10-03 TOXIC SUBSTANCES CONTROL ACT
ORDIS CODES..: RECN-006660 SSIE-HZ 809893 EPA -R806638 ORD -RH10830-1080
PE -C1T
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: EPITHELIAL CELLS REPRESENT THE TARGET TISSUES OF MOST HUMAN CANCER. THE GOALS OF THIS PROJECT ARE TO DEVELOP A BIOASSAY FOR DETECTING CARCINOGENS USING HUMAN EPITHELIAL LUNG CELLS. THIS ONCOGENIC TRANSFORMATION SYSTEM MAY HAVE ALSO THE POTENTIAL FOR USE IN ASSESSING THE RISK OF HUMANS TO CARCINOGEN EXPOSURE. GRANT RECENTLY BEGUN - NO SIGNIFICANT RESULTS.

·PROJECT 005116-EVALUATION OF URBAN RUNOFF MUTAGENICITY

TASK =CC35 -S1T59A · EPA=R806640 ·· (GRANT)
STARTING/ COMPLETION DATE : 07/79 - 07/80 FY80

EPA OFFICER RB TURKELTAUB EPA/MERL CINC FTS 8-340-6675
INVESTIGATOR CE MURPHY OBRIEN & GERE ENGINEERS INC SYRACUSE NY 13221
JM KARANIK ONONDAGA COUNTY GOVERNMENT SYRACUSE NY 13212

MILESTONES.... 08/79 -COMPLETE PREPARATION OF DETAIL WORK PLAN & SAMPLE SITE SELECTION
10/79 -ESTABLISH ANALYTICAL & MICROBIOLOGICAL METHODOLOGY FOR THE TEST SYSTEM
12/79 -COMPLETE ACQUISITION OF REPRESENTATIVE SAMPLES
01/80 -COMPLETE AMES MUTAGENICITY TESTING
02/80 -COMPLETE DATA ANALYSIS
04/80 -COMPLETE DRAFT FINAL REPORT
07/80 -COMPLETE FINAL MANUSCRIPT

PROGRAM ID.... (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
MANDATE....... 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES... RECN-005116 SSIE-GMA 6212 1 EPA -R806640 ORD -RC10830-1080
LABN-C822A-S1T59A PE -C35
PROJ STATUS... ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT....... OBJECTIVE: A) THE DETERMINATION OF THE MUTAGENIC POTENTIAL OF URBAN RUNOFF AND COMBINED SEWER OVERFLOW (CSO) IN TEST CATCHMENT AREAS IN ONONDAGA COUNTY OF NEW YORK AND ITS APPLICABILITY TO URBAN AREAS IN GENERAL, B) THE CORRELATION OF MUTAGENICITY RESULTS WITH BASELINE ANALYTICAL DATA FOR EACH CATCHMENT AREA, RELATING MUTAGENIC POTENTIAL TO UNIQUE CATCHMENT AREA CHARACTERISTICS, AND C) THE EVALUATION OF FOUR TREATMENT METHODOLOGIES FOR THEIR APPLICABILITY TO THE REDUCTION OF THE TOXIC POTENTIAL IMPOSED BY UNTREATED URBAN RUNOFF AND CSO. APPROACH: RUNOFF AND CSO SAMPLES WILL BE COLLECTED FROM A CROSS SECTION OF URBAN AREAS IN ONONDAGA COUNTY AND FROM THREE OTHER URBAN AREAS FOR A COMPARISON OF DATA. THE AMES MUTAGENICITY TEST WILL THEN BE PERFORMED ON THE SAMPLES AND THE RESULTS WILL BE ANALYZED AND EVALUATED.

*PROJECT: 005344-EXPERIMENTAL POND STUDIES ON THE EFFECTS OF AGRICULTURAL HERBICIDES ON AQUATIC FOOD
TASK =M820 -000020 --EPA=R806641 -- (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 05/80 : FY79

EPA OFFICER..: JN GAKSTETTER   EPA/ERL - CORVALLIS   503-757-4611
INVESTIGATOR.: F DENOYELLES   UNIV OF KANSAS   DEPT OF SYSTEMICS & ECOL
MILESTONES....: 05/80 -CONCLUSIONS ON THE EFFECT OF ATRAZINE
PROGRAM ID....: (PE-820)   FRESHWATER ECO EFFECTS - WATER QUALITY
FINAL OUTPUT..: CONCLUSIONS ON EFFECT OF ATRAZINE
MANDATE.......: 20-10   AA FOR WATER AND WASTE MANAGEMENT
20-11   DAA FOR WATER PLANNING AND STANDARDS
20-R07   EPA REGION VII
CURR. RESULTS: EXPERIMENTS HAVE BEEN STARTED.
ORDIS CODES...: RECN-005344   SSIE-GMA 6351   EPA -R806641   ORD -RM10B30-2079
PE -820
PROJ STATUS...: PROJECT-ACTIVE   INFO-ORIGINAL   ENTERED - UNKNOWN   UPDATED- JAN-MAR 80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: EVALUATE THE RESPONSE OF POND ECOSYSTEM TO DOSES OF ATRAZINE STIMULATING LEVELS WHICH ARE KNOWN TO OCCUR IN KANSAS SURFACE WATERS. CONCURRENTLY EVALUATE BIOASSAYS AS A MEANS FOR PREDICTING FIELD RESPONSES. EXAMINE FOOD CHAIN ACCUMULATION OF ATRAZINE. APPROACH: TWO PONDS (0.1 ACRE EACH) WILL RECEIVE A SINGLE DOSE OF ATRAZINE OF 1000 GLL. TWO OTHER PONDS WILL RECEIVE PERIODIC DOSES TO MAINTAIN CONCENTRATIONS AT THE 30 GLL LEVEL. TWO OTHER PONDS WILL SERVE AS CONTROLS. TREATMENTS WILL BE INITIATED IN THE SPRING AND MONITORING OF POND RESPONSE WILL CONTINUE FOR SEVERAL MONTHS. CONCURRENTLY SEVERAL TYPES OF LABORATORY BIOASSAYS WILL BE CONDUCTED USING ATRAZINE, PROPACHLOR AND ALACHLOR.

*PROJECT: 004786-RAPID TESTING IN VIVO OF CHEMICALS FOR CARCINOGENICITY

TASK =D834 -000019 **EPA=R806644-01 ** (GRANT)
STARTING/ COMPLETION DATE : 00/79 - UNK : FY79

EPA OFFICER.: MA PEREIRA EPA/HERL - CINC 513-684-7298
INVESTIGATOR.: B LOMBARDI UNIV OF PITTSBURGH SCHOOL OF MEDICINE
H SHINOZUKA UNIV OF PITTSBURGH SCHOOL OF MEDICINE
MILESTONES....: 07/80 -DETERMINATION OF POTENCY OF KNOWN CARCINOGENS
07/81 -DETERMINATION OF THE CARCINOGENIC POTENCY OF ENVIRONMENTAL SAMPLES
07/82 -VALIDATION OF GGT POSITIVE FOCI AS PRENEOPLASTIC LESIONS
PROGRAM ID...: (PE-834) HEALTH EFFECTS -ENERGY
MANDATE......: 30-99 CHEMICAL CARCINOGENESIS
ORDIS CODES...: RECN-004786 SSIE-GMA 5777 EPA -R806644-01 ORD -RD10B30-3079
PE -834
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: UNDER THIS GRANT THE SHORT-TERM INITIATION/PROMOTION ASSAY IN RAT LIVER FOR CHEMICAL CARCINOGENS WILL BE FURTHER DEVELOPED AND APPLIED TO ENVIRONMENTAL SAMPLES. AS PART OF THE VALIDATION OF THIS ASSAY, THE INITIATING POTENCY OF VARIOUS KNOWN ENVIRONMENTAL CHEMICALS WILL BE DETERMINED. THE CARCINOGENIC POTENCY OF CONCENTRATED DRINKING WATER AND OTHER ENVIRONMENTAL SAMPLES SUPPLIED BY THE EPA WILL BE TESTED IN ATTEMPTS TO DEFINE THE CARCINOGENIC RISK TO MAN OF WATER SUPPLY POLLUTANTS. APPROACH: THE CARCINOGENIC PROGRESSION IN RAT LIVER RESULTING FROM ADMINISTERING AN ENVIRONMENTAL CARCINOGEN IS PROMOTED BY DIETARY CHOLINE DEFICIENCY IN ORDER TO ACCELERATE THE APPEARANCE OF PRENEOPLASTIC LESIONS. THE APPEARANCE OF NEOPLASTIC TRANSFORMATION IS DETERMINED BY THE INDUCTION OF GAMMA GLUTAMYL TRANSFERASE CONTAINING HEPATOCYTES.

*PROJECT: 005604-PREDICTION OF PREFERENTIAL SELECTIVITY FOR ACTIVATED CARBON ADSORPTION OF TRACE ORGANIC (HOMOLOG) CONTAMINANTS

TASK =C821B-S5AE12 **EPA=R806648-01 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 05/82 : FY79

EPA OFFICER.: JJ WESTRICK EPA/MERL - CINC 513-684-7652
INVESTIGATOR.: G BELFORT RENSSELAER POLY INST SCH OF ENG/CHEM & ENV ENG
PROGRAM ID....: (PE-821) URBAN SYS & TOXICS RESID MANAG. - WATER QUALITY
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES...: RECN-005604 SSIE-GMA 6705 EPA -R806648-01 ORD -RC10B30-1079
PE -821
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: THE OBJECTIVE IS TO INVESTIGATE BOTH THE FUNDAMENTAL SOLVOPHOBIC THERMODYNAMIC THEORY AND A PRIORI PREDICTIVE METHODS (BASED ON ORGANIC STRUCTURE) FOR DEVELOPING A COMPREHENSIVE THEORETICAL BASIS TO PREDICT THE PREFERENTIAL ADSORPTION OF ORGANIC HOMOLOGS ON ACTIVATED CARBON FROM DILUTE AQUEOUS SOLUTION. APPROACH: EXPERIMENTAL ADSORPTION DATA WILL BE EXTRACTED FROM THE LITERATURE AND DIRECTLY MEASURED DURING THE STUDY IN ORDER TO OBTAIN A COMPREHENSIVE DATA-BASE. THE THEORIES DEVELOPED DURING THIS PROJECT WILL BE USED TO RANK SINGLE SOLUTE HOMOLOGS, AND POSSIBLY DESCRIBE COMPETITIVE ADSORPTION AMONG HOMOLOGS (AND BETWEEN DIFFERENT HOMOLOG SERIES). DIFFERENT ACTIVATED CARBONS WILL ALSO BE EVALUATED VIS-A-VIS THEIR SELECTIVITY FOR HOMOLOGS.

*PROJECT: 004817-AIR POLLUTION MONITORING BY LONG PATH LASERS

TASK =GC07 -000427 **EPA=R806650-01 ** (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 03/82 : FY80

EPA OFFICER.: WA MCCLENNY EPA/ESRL - RTP FTS 8-629-3158
INVESTIGATOR.: LW CHANEY UNIV OF MICHIGAN HIGH ALTITUDE ENGINEERING
FL BARTMAN UNIV OF MICHIGAN HIGH ALTITUDE ENGINEERING
MILESTONES...: 10/79 -RESULTS FROM NORTHEAST OXIDANT STUDY AVAILABLE
05/80 -RESULTS FROM STUDY OF CO VARIABILITY AVAILABLE
03/82 -EPA TECHNICAL PUBLICATIONS, SUPPORT OF FIELD STUDIES
PROGRAM ID...: (PE-C07) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
FINAL OUTPUT.: EPA TECHNICAL PUBLICATIONS, SUPPORT OF FIELD STUDIES
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: REDESIGN OF OPTICS FOR O3 MONITORING SYSTEM IN PROGRESS
FOR FINAL TESTING.
ORDIS CODES..: RECN-004817 SSIE-GMA 5795 1 EPA -R806650-01 ORD -RG10B30-1080
LABN-G712B-BB-032 PE -C07
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: TO USE ESRL'S EXISTING LONG PATH MONITORING SYSTEMS IN FIELD TEST TO MEASURE SPATIAL (HORIZONTAL AND VERTICAL) AVERAGES OF CO AND O3 IN THE AMBIENT AIR. THE UNIQUE MONITORING CAPABILITIES OF LONG PATH MONITORS WILL BE USED TO VALIDATE AIR QUALITY MODELS AND TO DETERMINE SPATIAL VARIABILITY OF CO AND O3. APPROACH: TO DESIGN AN OPTICAL TRANSFER SYSTEM TO DEFLECT DIODE AND CO2 LASER BEAMS FROM A MOBILE VAN TO A REMOTE RETRO-REFLECTOR SO THAT A CAPABILITY FOR MEASURING SLANT HEIGHT AVERAGES OF O3 CAN BE REALIZED. TO MEASURE O3 AND CO SPATIAL AVERAGES IN EPA FIELD STUDIES.

•PROJECT: 005516-AMBIENT AEROSOL ANALYSIS NEAR COAL GASIFICATION PLANT, YUGOSLAVIA

TASK =GC2P -000546 ••EPA=R806651-01 •• (GRANT)
STARTING/ COMPLETION DATE : 04/79 - 05/80 : FY80

EPA OFFICER.: RK PATTERSON EPA/ESRL - RTP FTS 8-629-2254
INVESTIGATOR.: JW WINCHESTER FLORIDA STATE UNIV ARTS & SCI/CHEM DEPT
JW NELSON FLORIDA STATE UNIV ARTS & SCI/CHEM DEPT

MILESTONES...: 06/79 -EPA SUPPLY SAMPLES TO GRANTEE
08/79 -GRANTEE SUPPLY PRELIMINARY DATA TO EPA & YUGOSLAVS
05/80 -ORD FINAL REPORT ON TRACE METALS NEAR COAL GASIFICATION PLANT IN REGION KOSOVO.

PROGRAM ID...: (PE-C2P) ATMOS TRANS OF ENERGY RELATED POLLUTANTS

FINAL OUTPUT.: REPORT ON TRACE METALS NEAR COAL GASIFICATION PLANT IN REGION KOSOVO, YUGOSLAVIA.

MANDATE......: 10-02 CLEAN AIR ACT

CURR. RESULTS: RESULTS TO BE PRESENTED AT 180TH NATIONAL AM. CHEM. SOC. MEETING (AUGUST 24-29, 1980); SESSION TO BE PUBLISHED BY ACS.

ORDIS CODES..: RECN-005516 SSIE-GMA 5782 1 EPA -R806651-01 ORD -RG10B30-1080
LABN-G832B-EA-141 PE -C2P

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: (1) TO SUPPLY SIZE FRACTIONATING AND TIME RESOLVING SAMPLING DEVICES TO THE EPA FOR USE IN YUGOSLAVIAN GASIFIER STUDY, (2) TO DETERMINE ELEMENTAL COMPOSITION ON SELECTED SAMPLES COLLECTED BY EPA IN YUGOSLAVIA, AND (3) TO INTERPRET ANALYSIS DATA FROM YUGOSLAVIAN SAMPLES, (4) TO SUPPLY ELEMENTAL SIZE DISTRIBUTIONS AND TIME RESOLVED ELEMENTAL CONCENTRATIONS TO EPA AND TO YUGOSLAVS. APPROACH: TO ANALYZE SIZE FRACTIONATED AND TIME RESOLVED SAMPLED COLLECTIONS USING PROTON INDUCED X-RAY EMISSION (PIXE) TECHNIQUES AND STATISTICAL DATA INTERPRETATION AND ANALYSIS TECHNIQUES.

•PROJECT: 006658-PULMONARY EFFECTS OF POLLUTANTS RELATED TO ENERGY CONSUMPTION

TASK =HC03 -931800 ••EPA=R806652 •• (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 10/82 : FY80

EPA OFFICER..: ROYCROFT EPA/HERL - RTP 629-2694
INVESTIGATOR.: MUSTAFA UNIV OF CALIFORNIA GRADUATE SCHOOL
MILESTONES...: 12/79 -MEASURE THE EFFECT OF DIETARY VITAMIN E ON NO2 TOX
12/79 -MEASURE THE TRANSFORMATION OF NO2 IN THE LUNG
06/81 -COMPLETE NO2 + O3 STUDIES ON SELECTED ENZYMES.
10/84 -FINAL REPORT
PROGRAM ID...: (PE-C03) HEALTH EFFECTS/ NON-CRIT POLL -AIR
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-006658 SSIE-HZ 809318 EPA -R806652 ORD -RH10B30-1080
PE -C03
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: THE OBJECTIVE OF THIS PROPOSAL IS THE BIOCHEMICAL AND MORPHOLOGICAL EVALUATION OF THE HEALTH EFFECTS OF INHALATION EXPOSURE OF RATS TO NITROGEN DIOXIDE OZONE AND SULFUR DIOXIDE #SIMPLY AND IN COMBINATION! RANGE FINDING EXPERIMENTS TO DETERMINE A NO EFFECT LEVEL OF NO2 INDUCED LUNG DAMAGE WAS INITIATED. IT WAS FOUND THAT EXPOSURE TO 3 PPM NO2 FOR 7 DAYS HAD NO SIGNIFICANT EFFECT ON THE PARAMETERS STUDIED (E.G. LUNG WEIGHT, DNA CONTENT, ACTIVITY OF G-6-PD, GLUTATHIONE REDUCTASE AND PEROXIDASE, SUCCINATE OXIDASE, CYTOCHROME OXIDASE, 6-PGLUCONATE DEHYDROGENASE, AND DISULFIDE REDUCTASE. IT WAS ALSO FOUND THAT RATS PLACED ON DIETS DEFICIENT IN VITAMIN E PRIOR TO 7 DAYS EXPOSURE TO 3 PPM NO2 SHOWED INCREASED ACTIVITIES OF THE SAME MARKER ENZYMES IN LUNG TISSUE. NO2 EXPOSURE ALSO CAUSED AN ALTERATION OF VITAMIN E LEVELS IN LUNG TISSUE (E.G. 15% DECREASE IN DEFICIENT RATS, 84% INCREASE IN SUPPLEMENTED RATS, ALL RELATIVE TO UNEXPOSED CONTROLS). ISOLATED LUNGS WERE EXPOSED TO 5 PPM NO2 FOR 90 MINUTES. NO2 EXPOSURE DID NOT INCLUDE LUNG EDEMA OR ALTER GLUCOSE CONSUMPTION AND LACTATE PRODUCTION. NO2- WAS THE MAJOR PRODUCT IN PERFUSATE AND LUNG TISSUE WITH LITTLE OR NO NO3-. PERFUSATE NO2- PRODUCTION WAS LINEAR WITH TIME. 38% OF THE INHALED NO2- WAS RETAINED BY THE LUNG. WHEN INCUBATED WITH RBC THE NO2IN THE CELL FREE MEDIUM WAS RAPIDLY CONVERTED TO NO3-. THIS MAY SUGGEST THAT A MAJOR PORTION OF INHALED NO2 IS CONNECTED TO NO2- IN THE LUNG, AND THAT NO2- MAY THEN DIFFUSE INTO THE BLOOD WHERE IT IS OXIDIZED TO NO3-.

•PROJECT: 004699-WASTE TO ENERGY TECHNOLOGY CONFERENCE - 1979 UPDATE

TASK =B827B-000861 ••EPA=P806653-01 •• (GRANT)
STARTING/ COMPLETION DATE : 03/79 - 02/80 : FY79

EPA OFFICER..: HM FREEMAN EPA/IERL - CINC 513-684-4363
INVESTIGATOR.: R SMITHSON BATTELLE MEMORIAL INST COLUMBUS OH 43201
MILESTONES...: 04/80 -CONFERENCE
06/80 -PROCEEDINGS REPORT
PROGRAM ID...: (PE-827) ENV IMPACT OF CONV & ADV ENERGY SYSTEMS
FINAL OUTPUT.: PROCEEDINGS REPORT
ORDIS CODES..: RECN-004699 SSIE-GMA 5759 EPA -R806653-01 ORD -RB10B30-4079
PE -827
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO PROVIDE A FORUM FOR NEW R & D RESULTS IN THE WASTE TO ENERGY TECHNOLOGY INDUSTRY. APPROACH: A 3-DAY TECHNICAL CONFERENCE WAS HELD IN CINCINNATI APRIL 15-16, 1980.

•PROJECT: 005988-MINERAL MATTER AND TRACE ELEMENTS IN COAL

TASK =F8250-792040 ••EPA=R806654 •• (GRANT)
STARTING/ COMPLETION DATE : 04/79 - 04/82 : FY79

EPA OFFICER..: JP KILGROE EPA/IERL - RTP 919-541-2851
INVESTIGATOR.: SJ RUSSELL UNIV OF ILLINOIS CIV ENG DEPT
PROGRAM ID...: (PE-825) FUEL PROCESSING ,PREPARATION ADV COMBUSTION
MANDATE......: 20-14 DAA FOR SOLID WASTE
20-23 DAA FOR AIR QUALITY PLANNING AND STANDARDS

CURR. RESULTS: PREIMINARY INTERPRETATION OF ELEMENT CONCENTRATION IN THE HERRIN (NO. 6) COAL HAS BEEN MADE FOR THE CHALCOPHILE ELEMENTS PB, AS, O, SB, NI, AND CU. CONCENTRATIONS OF THESE ELEMENTS ARE HIGHE N NORTH CENTRAL AND NW ILLINOIS AND FOR THE SOUTHERN AREA OF THE ILLINOIS BASIN. CONCENTRATIONS ARE HIGHER IN THE EASTERN PORTION. AREAS OF HIGH CHALCOPHILE ELEMENT CONCENTRATION ARE IN PUOXIMITY TO THE PB-ZN MINERALA DISTRICT OF NW ILLINOIS OND TO THE CAVIN ROCK FLUORSPAR-GALENA MINERALIZED DISTRICT OF SES ILLINOIS.

ORDIS CODES...: RECN-005988 SSIE-GMA 6503 EPA -R806654 ORD -RF10B30-2079
PE -825

PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: 1) MAP THE GEOGRAPHIC DISTRIBUTION OF MAJOR, MINOR AND TRACE ELEMENTS AND MINERALS IN SELECTED ILLINOIS BASIN COALS; AND 2) DETERMINE THE ORGANIC/INORGANIC AFFINITIES OF TRACE ELEMENTS IN COAL. APPROACH: PREPARE MAPS OF THE GEOGRAPHIC DISTRIBUTIONS OF MAJOR, MINOR AND TRACE ELEMENTS AND MINERALS IN ILLINOIS COALS.

·PROJECT: 004808-REFINEMENT, VERFICATION, AND APPLICATION OF A LONG-RANGE TRANSPORT MODEL
OF SO2 AND SULFATE
TASK =GC1M -000337 ··EPA=R806658-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 12/80 : FY80
EPA OFFICER.: GC HOLZWORTH EPA/ESRL - RTP FTS-8-629-4551
INVESTIGATOR.: ER REITER COLORADO STATE UNIV AGRIC ENG DEPT
T HENMI COLORADO STATE UNIV AGRIC ENG DEPT
MILESTONES...: 12/80 -MODEL PROGRAM, VALIDATION, PROJECTED SCENARIOS
PROGRAM ID...: (PE-C1M) ANTICIPATORY - INTERDISCIPLINARY
FINAL OUTPUT.: INTERIM REPORT RECEIVED ON PROGRESS ON 12/79 REFORTS ON PRIOR
GRANTRS ARE LONG RANGE TRANSPORT AND TRANSPORMATION OF
SO2 AND SULFATE (EPA-600/4-79-068) AND RESIDENCE TIME OF
ATMOSPHERIC POLLUTANTS AND LONG RANFE TRANSPO
(EPA-600/4-78-003)
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: REPORT ON AEROSOL TRANSPORT OF SULFURIC ACID FROM ROAD
HAS BEEN PRINTED.
ORDIS CODES...: RECN-004808 SSIE-GMA 5816 1 EPA -R806658-01 ORD -RG10B30-1078
LABN-G603A-AC-05 PE -C1M
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: TO IMPROVE THE INVESTIGATORS' EARLIER WORK ON THIS MODEL BY OPTIMIZING COMPUTER PROGRAMS, VALIDATING THE MODEL, DEVELOPING AN ALGORITHM FOR ACIDITY OF PRECIPITATION, AND APPLY THE MODEL TO PROJECTED SO2 EMISSIONS. APPROACH: TO UTILIZE LITERATURE FOR MODEL PHYSICS AND CHEMISTRY, AND USE EPA EMISSIONS AND AIR QUALITY DATA FOR VALIDATION OF MODEL RUNS.

·PROJECT: 005208-DEVELOPMENT OF DETAILED TESTING PROTOCOLS FOR DETERMINING ATMOSPHERIC
LIFETIME OF TOXIC ORGANICS
TASK =G760C-DA0003 ··EPA=R806661-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 09/80 : FY79
EPA OFFICER.: JW SPENCE EPA/ESRL - RTP FTS 8-629-2998
INVESTIGATOR.: JN PITTS UNIV OF CALIFORNIA AIR POLL RES CTR
MILESTONES...: 03/80 -REPORT ON TESTING PROTOCOLS
PROGRAM ID...: (PE-760) TRANSPORT AND FATE -TOXIC SUBSTANCES
ORDIS CODES...: RECN-005208 SSIE-GMA 6194 EPA -R806661-01 ORD -RG10B30-4079
PE -760
PROJ STATUS...: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: THE OVERALL OBJECTIVE OF THIS GRANT IS TO DEVELOP AND TO VALIDATE DETAILED TESTING PROTOCOLS BASED ON SIMPLE, COST-EFFECTIVE, REPEATABLE TEST PROCEDURES FOR DETERMINING THE LIFETIME OF TOXIC ORGANICS. APPROACH: THE FEASIBILITY OF TEFLON BAGS WILL BE INVESTIGATED FOR DETERMINING THE REACTION RATES OF TOXIC ORGANICS WITH OZONE AND HYDROXYL RADICALS. TESTING PROCEDURES TO DETERMINE THE RATE OF PHOTOLYSIS OF HALOGENATED ORGANICS WILL ALSO BE INVESTIGATED.

*PROJECT: 005173-EPIDEMIOLOGICAL STUDY OF WOMEN EXPOSED TO STYRENE AND REPRODUCTIVE DYSFUNCTION
TASK =DC1T -5D005E **EPA=R806669-01 ** (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 08/81 : FY80

EPA OFFICER.: RK MIDAY — EPA/HERL - CINC — FTS 8-684-7461
INVESTIGATOR.: G LEMASTERS — UNIV OF CINCINNATI — CIV & CIV ENG DEPT
SM BROOKS — UNIV OF CINCINNATI — CIV & CIV ENG DEPT
MILESTONES...: 12/79 -SELECTION OF STUDY AND COMPARISON GROUPS COMPLETED
06/81 -INTERVIEWING COMPLETED
03/82 -RISK RATIOS CALCULATED FOR VARIOUS EXPOSURES
PROGRAM ID...: (PE-C1T) HEALTH EFFECTS - TOXICS
MANDATE......: 10-13 SOLID WASTE DISPOSAL ACT
20-30 AA FOR TOXIC SUBSTANCES
CURR. RESULTS: QUESTIONNAIRE COMPLETED.
ORDIS CODES..: RECN-005173 SSIE-GMA 6176 1 EPA -R806669-01 ORD -RISK RATTIOS
ORD -RD10B30-5080 LABN-D629 -02 PE -C1T
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVES ARE TO DETERMINE WHETHER OR NOT WOMEN OCCUPATIONALLY EXPOSED TO STYRENE EXPERIENCE ANY REPRODUCTIVE DYSFUNCTION WHEN COMPARED WITH A SIMILAR WORKING UNEXPOSED CONTROL GROUP, AND TO DETERMINE IF MEASURING REPRODUCTIVE DYSFUNCTION IS A USEFUL METHODOLOGY FOR MONITORING POPULATIONS EXPOSED TO TOXIC CHEMICALS. APPROACH: THE APPROACH IS THROUGH THE USE OF AN HISTORICAL COHORT EPIDEMIOLOGICAL STUDY OF WOMEN AGED 18-30 WHO HAVE WORKED IN THE STYRENE MANUFACTURING INDUSTRY. A QUESTIONNAIRE WILL BE ADMINISTERED VIA TELEPHONE TO THE EXPOSED AND UNEXPOSED WORKERS TO MEASURE SPONTANEOUS ABORTION, MENSTRUAL DYSFUNCTION, STILLBIRTH, PREMATURITY, INFERTILITY AND CONGENITAL MALFORMATION.

*PROJECT: 004603-1980 NATIONAL CONFERENCE ON CONTROL OF HAZARDOUS MATERIALS SPILLS
TASK =B610A-000906 **EPA=R806671-01 ** (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 05/80 : FY79

EPA OFFICER.: I WILDER — EPA/IERL - CINC — FTS 8-340-6635
INVESTIGATOR.: RF HARBISON — VANDERBILT UNIV — SCH OF MED/BIOCHEM DEPT
PROGRAM ID...: (PE-610) INDUSTRIAL PROC. - WATER QUALITY
MANDATE......: 40-99
ORDIS CODES..: RECN-004603 SSIE-GMA 5757 EPA -R806671-01 ORD -RE10B30-4079
PE -610
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: A CONFERENCE WILL CONVENE IN THE SPRING 1980 ON CONTROL AND PREVENTION ON HAZARDOUS MATERIAL SPILLS. APPROACH: THE TOPICS TO BE PRESENTED INCLUDED: PREVENTION, SPILL MOVEMENT, TRAINING, AND RESEACH AND DEVELOPMENT.

*PROJECT: 005107-ULTIMATE USES OF SEWAGE SLUDGE - NON-FOOD CHAIN

TASK =CC36 -S1TC47 **EPA=R806672-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 02/83 : FYBD

EPA OFFICER.: GK DOTSON EPA/MERL - CINC FTS 8-684-7661
INVESTIGATOR.: TC WEIDENSAUL OHIO AGRIC R&D CTR AGRIC ENG DEPT
MILESTONES...: 11/79 -PROJECT STARTED
11/82 -PROJECT COMPLETED
02/83 -USE OF SEWAGE SLUDGE FOR NON-FOOD CHAIN CROP PURPOSES
PROGRAM ID...: (PE-C36) URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
FINAL OUTPUT.: REPORT: "USE OF SEWAGE SLUDGE FOR NON-FOOD
CHAIN CROP PURPOSES"
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-05 RESOURCE CONSERVATION AND RECOVERY ACT
ORDIS CODES..: RECN-005107 SSIE-GMA 6223 1 EPA -R806672-01 ORD -RC10830-1080
PE -C36
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO ELUCIDATE EFFECTS OF DIGESTED SEWAGE SLUDGE ON: (A) CONTAINER-PRODUCED CONIFER AND HARDWOOD TREES IN THE GREENHOUSE, (B) CONVENTIONAL NURSERY PRODUCTION OF FOREST TREE SEEDLINGS, (C) MYCORRHIZAE FUNCTIONS, (D) PLANTATION PRODUCED CHRISTMAS TREES, AND (E) RENOVATION OF MARGINAL AND DISTURBED LAND FOR TREE PRODUCTION. APPROACH: TO INVESTIGATE THE OBJECTIVES BY GREENHOUSE, NURSERY, LABORATORY AND PILOT SIZE PLOTS UNDER ACTUAL FIELD CONDITION STUDIES.

*PROJECT: 005172-METHODS FOR ENTERIC VIRUS CONCENTRATION FROM RAW AND FINISHED DRINKING WATER SUPPLIES
TASK =DC60 -5A0010 **EPA=R806677-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 02/82 : FY80

EPA OFFICER.: W JAKUBOWSKI   EPA/HERL - CINC   FTS 8-684-7385
INVESTIGATOR.: MD SOBSEY   UNIV OF NORTH CAROLINA   DEPT OF ENV SCI & ENGIN
MILESTONES...: 08/80 -ANNUAL REPORT
02/82 -FINAL REPORT - RECOMMENDATIONS FOR METHODOLOGY
PROGRAM ID...: (PE-C60)   HEALTH EFFECTS - DRINKING WATER
FINAL OUTPUT.: RECOMMENDATIONS FOR METHODOLOGY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-15 SAFE DRINKING WATER ACT
20-12 DAA FOR WATER PROGRAM OPERATIONS
20-13 DAA FOR DRINKING WATER
CURR. RESULTS: PREPARATIONS OF INORGANIC PARTICULATES (BENTONITE AND FERRIC OXIDE) HAVE BEEN DEVELOPED FOR CONDUCTING SOLID ASSOCIATED VIRUS CONCENTRATION EXPERIMENTS. REMOVAL OF NATURALLY-OCCURING PARTICULATES FROM WATER SAMPLES RESULTS IN DECREASED VIRUS RETENTION AND INCREASED ELUTION EFFICIENCY.
ORDIS CODES..: RECN-005172   SSIE-GMA 6181 1   EPA -R806677-01   ORD -RD10B30-5080
LABN-D607D-014   PE -C60
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: DEVELOP AND EVALUATE RECOVERY AND CONCENTRATION METHODS FOR ENTERIC VIRUSES ABSORBED TO NATURALLY OCCURRING ORGANIC AND INORGANIC SOLIDS (TURBIDITY) IN LARGE VOLUMES OF RAW AND FINISHED DRINKING WATER SUPPLIES. DEVELOP AND EVALUATE METHODS FOR ELIMINATING OR CONTROLLING THE EFFECTS OF NATURALLY OCCURRING DISSOLVED AND COLLOIDAL SUBSTANCES IN RAW AND FINISHED DRINKING WATER SUPPLIES THAT INTERFERE WITH ENTERIC VIRUS ADSORPTION TO AND ELUTION FROM MICROPOROUS FILTERS. APPROACH: BECAUSE OF THEIR POTENTIAL ADVANTAGES OVER CONVENTIONAL VIRUS ADSORBENTS, MICROPOROUS FILTERS THAT ARE MORE ELECTROPOSITIVE THAN THE CONVENTIONAL ELECTRONEGATIVE FILTERS WILL BE DEVELOPED AND EVALUATED FOR ENTERIC VIRUS CONCENTRATION FROM LARGE VOLUMES OF RAW AND FINISHED DRINKING WATER SUPPLIES. USING THE OPTIMUM CONDITIONS DEVELOPED FOR BOTH ELECTROPOSITIVE AND ELECTRONEGATIVE FILTERS, THEY WILL BE RIGOROUSLY COMPARED FOR THE RECOVERY OF ALL FOUR MAJOR ENTERIC VIRUS GROUPS (ENTEROVIRUSES, REOVIRUSES/ROTAVIRUSES, PARVOVIRUSES AND ADENOVIRUSES) FROM LARGE VOLUMES OF RAW AND FINISHED DRINKING WATER SUPPLIES.

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*PROJECT: 004810-MEASUREMENT OF THE OXIDIZING POTENTIAL OF THE TROPOSPHERE FOR SOLVENT
               EMISSIONS
                 TASK =G603A-AF0015 **EPA=R806678-01 ** (GRANT)
                 STARTING/ COMPLETION DATE : 05/79 - 05/82 :    FY79
  EPA  OFFICER.: JJ BUFALINI              EPA/ESRL - RTP               919-541-2422
  INVESTIGATOR.: DR CRONN                 WASHINGTON STATE UNIV        DEPT OF CIVIL & ENV ENGIN
                 M  CAMPBELL              WASHINGTON STATE UNIV        DEPT OF CIVIL & ENV ENGIN
                 J  SHEPPARD              WASHINGTON STATE UNIV        DEPT OF CIVIL & ENV ENGIN
  MILESTONES...: 06/80 -REPORT ON METHYL CHLOROFORM IN ATMOSPHERE
  PROGRAM ID...: (PE-603 )          TRANS. AND FATE -AIR
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: MIXING RATIO OF CH3CCL MEASURED AND FOUND TO BE
                 APPROX 100 PPT IN NORTHERN HEMISPHERE IN 1978.
  ORDIS CODES..: RECN-004810        SSIE-GMA  5810        EPA -R806678-01      ORD -RG10B30-1079
                 PE  -603
  PROJ STATUS..: PROJECT-ACTIVE     INFO-ORIGINAL         ENTERED - UNKNOWN    UPDATED-  JUL-SEP 79
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: THE PURPOSE OF THIS WORK IS TO MEASURE METHYL CHLOROFORM AND OTHER HALOGENATED HYDROCARBONS PRESENT IN THE TROPOSPHERE AND ALSO MEASURE OH RADICALS THAT LEAD TO THE DESTRUCTION OF HALOCARBONS IN THE TROPOSPHERE. APPROACH: THE HALOCARBONS WILL BE MEASURED WITH THE USE OF A GAS CHROMATOGRAPH EQUIPPED WITH AN ELECTRON CAPTURE DETECTOR. THE OH RADICALS WILL BE MEASURED WITH TAGGED C140. THE C1402 RESULTING FROM REACTION OF CO WITH OH WILL BE MEASURED WITH A LOW LEVEL COUNTER. RESULTS TO DATE: THE MIXING RATIO OF CH3 CCL3 HAS BEEN MEASURED AND FOUND TO BE APPROXIMATELY 100 PPT IN THE NORTHERN HEMISPHERE IN 1978. THE OH RADICAL CONCENTRATION WAS FOUND TO BE BETWEEN 2 X 10 THE 5TH POWER AND 4 X 10 THE 6TH POWER/CM.

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*PROJECT: 005137-MODELING OF FINE SEDIMENT TRANSPORT PROCESSES FOR TRACKING POLLUTANT
                 MOVEMENT
                  TASK =KC28 -000412 **EPA=R806684-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 10/81 :   FY80
  EPA  OFFICER.: RB AMBROSE                 EPA/ERL - ATHENS                FTS 8-250-3546
  INVESTIGATOR.: AJ MEHTA                   STATE UNIV SYS OF FLORIDA       DEPT. OF OCEANOGRAPHY
  MILESTONES...: 10/80 -INTERIM REPORT ON MODEL DEVELOPMENT
                 10/81 -FINAL REPORT ON SEDIMENT TRANSPORT MODEL TESTING AND DEVELOPMENT
  PROGRAM ID...: (PE-C28 )          TRANS. AND FATE  - WATER QUALITY
  FINAL OUTPUT.: FINAL REPORT ON SEDIMENT TRANSPORT MODEL
                 TESTING AND DEVELOPMENT
  MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
                 10-06     FEDERAL INSECTICIDE. FUNG. AND RODENT. ACT
                 20-11     DAA FOR WATER PLANNING AND STANDARDS
  CURR. RESULTS: DATA OBTAINED WHICH CHARACTERIZES EROSION OF SEDIMENTS
                 IN STRATIFIED BEDS. COMPLETION SCHEDULED FOR 9/81.
  ORDIS CODES..: RECN-005137        SSIE-GMA  6243 1      EPA -R806684-01      ORD -RK10B30-5080
                 PE  -C28
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS STUDY IS TO DEVELOP AND TEST PROCESS DESCRIPTIONS FOR SEDIMENT
                  DEPOSITION AND SCOUR IN ESTUARINE ENVIRONMENTS. THESE PROCESS DESCRIPTIONS WILL BE INTERFACED WITH
                  POLLUTANT TRANSPORT AND FATE MODELS SO THAT ESTIMATIONS OF MOVEMENT OF ORGANIC TOXIC SUBSTANCES
                  WHICH SORB TO SUSPENDED PARTICULATE CAN BE MADE. APPROACH: THE OBJECTIVES OF THIS PROJECT WILL BE
                  ACCOMPLISHED IN THREE PHASES. FIRST, A LITERATURE SURVEY WILL BE CONDUCTED TO ASSESS THE
                  STATE-OF-THE-ART. SECOND, BASED ON THE RESULTS OF THE SURVEY AND GRANTEE'S EXPERIENCE, A MODEL WILL
                  BE CONSTRUCTED WHICH DESCRIBES THE PROCESSES OF DEPOSITION AND SCOUR IN ESTUARINE ENVIRONMENTS.
                  THIRD, THE MODEL WILL BE TESTED IN A LABORATORY FACILITY TO DETERMINE RANGE OF VALIDITY. AWARD OF
                  GRANT WAS MADE IN SEPTEMBER 1979. COMPLETION DATE IS SCHEDULED FOR SEP. 1981.


*PROJECT: 006029-FUEL NITROGEN MECHANISMS IN LAMINAR OPPOSED JET DIFFUSION FLAMES

                  TASK =F829L-791480 **EPA=R806685     ** (GRANT)
                  STARTING/ COMPLETION DATE : 07/79 - 07/82 :   FY79
  EPA  OFFICER.: WS LANIER                  EPA/IERL - RTP                  FTS 8-629-2432
  INVESTIGATOR.: JO WENDT                   UNIV OF ARIZONA                 DEPT OF ELECTRICAL ENGIN
  PROGRAM ID...: (PE-829 )          NITROGEN OXIDE CONTROL -ENERGY
  MANDATE......: 20-23     DAA FOR AIR QUALITY PLANNING AND STANDARDS
  ORDIS CODES..: RECN-006029        SSIE-GMA  6502        EPA -R806685         ORD -RF10B30-2079
                 PE  -829
  PROJ STATUS..: PROJECT-ACTIVE        INFO-ORIGINAL         ENTERED - 06-28-80    UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: SHED LIGHT ON THE KINETIC MECHANISMS OF FUEL NITROGEN CONVERSION UNDER FUEL RICH AND
                  OXIDATIVE PYROLYSIS ENVIRONMENTS SIMILAR TO THOSE OF IMPORTANCE IN PRACTICAL COMBUSTORS. THE
                  PROJECT WILL FOCUS ON THE CHEMICAL PROCESSING OF VARIOUS FUEL NITROGEN COMPOUNDS IN A LAMINAR,
                  STRETCHED, DIFFUSION FLAME ENVIRONMENT. APPROACH: PROVIDE DATA TO BE USED WITH OTHER DATA ON COAL
                  PYROLYSIS AND/OR OIL DISTILLATION TO PREDICT DIFFERENT POLLUTANT FORMING CHARACTERISTICS OF
                  DIFFERENT NITROGEN CONTAINING FUELS.
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*PROJECT: 005129-SEATTLE DISTRIBUTION SYSTEM CORROSION CONTROL STUDY

                TASK =CC61 -S1T072 **EPA=R806686-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 10/79 - 03/82 :   FY80
 EPA  OFFICER.: MC GARDELS              EPA/MERL - CINC              FTS-8-684-7236
 INVESTIGATOR.: GJ KIRMEYER             SEATTLE CITY WATER DEPT.     SEATTLE                WA 98104
 MILESTONES...: 06/80 -START UP OF PILOT PLANT SYSTEMS
                03/81 -COMPLETION OF PILOT WORK
                10/81 -END OF EVALUATION
 PROGRAM ID...: (PE-C61 )          DRINK WATER TREATMENT & GROUND WATER PROT
 MANDATE......: 10-15     SAFE DRINKING WATER ACT
 ORDIS CODES..: RECN-005129          SSIE-GMA  6238 1      EPA -R806686-01      ORD -RC10B30-1080
                PE  -C61
 PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED           ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH     ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO DEVELOP APPROPRIATE STARTUP PROCEDURES FOR FULLSCALE CORROSION CONTROL IN SEATTLE'S
                 WATER DISTRIBUTION SYSTEM. APPROACH: TO TREAT AND MONITOR ISOLATED PORTIONS OF THE DISTRIBUTION
                 SYSTEM AND TO DOCUMENT RESULTS OF ANTICIPATED REDUCTION IN CORROSION.


*PROJECT: 004830-PRECONCENTRATION AND ANALYSIS OF AMMONIA AND AMINES IN AIR

                TASK =G833D-EB-017 **EPA=R806688-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 05/79 - 05/80 :   FY79
 EPA  OFFICER.: WA MCCLENNY             EPA/ESRL - RTP               FTS 8-629-3158
 INVESTIGATOR.: RS BRAMAN               STATE UNIV SYS OF FLORIDA    DEPT. OF CHEMISTRY
 MILESTONES...: 10/80 -ORD REPORT ON DETECTION OF AMBIENT LEVELS OF AMMONIA AND AMINES
 PROGRAM ID...: (PE-833 )          MEASURE. SYS & INSTR. DEVEL FOR ENGIN.
 FINAL OUTPUT.: REPORT ON DETECTION OF AMBIENT LEVELS OF
                AMMONIA AND AMINES.
 MANDATE......: 10-02     CLEAN AIR ACT
 CURR. RESULTS: TUNGSTIC ACID IDENTIFIED AS SORBANT; FIELD TESTING
                USING DIFFUSION TUBES WITH TUNGSTIC ACID COATING
                SHOW PLUS OR MINUS PRECISION FOR NH3 DETECTION AT
                1PPB LEVEL.
 ORDIS CODES..: RECN-004830          SSIE-GMA  5789        EPA -R806688-01      ORD -RG10B30-1079
                PE  -833
 PROJ STATUS..: PROJECT-ACTIVE        INFO-UPDATED           ENTERED - UNKNOWN     UPDATED-  JUL-SEP 79
                CATEGORY-RESEARCH     ACCESS-PUBLIC
 COMMENT......: CONTINUATION OF GRANT 806099
 ABSTRACT.....: OBJECTIVE: TO PRECONCENTRATE NH3 AND AMINES FROM THE AMBIENT AIR AND THEN TO MEASURE THEM
                 INDIVIDUALLY AS THEY ARE THERMALLY DESORBED FROM THE PRECONCENTRATOR. OBJECTIVE IS ONE OF
                 INSTRUMENTAL TECHNIQUE DEVELOPMENT. APPROACH: NH3 AND AMINE STANDARDS WILL BE ESTABLISHED AND
                 LABORATORY EXPERIMENTS TO TEST SORBENT MATERIALS WILL BE PLANNED AND EXECUTED. THE BEST SORBENT
                 WILL BE SELECTED FOR EXTENSIVE TESTING.
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*PROJECT: 005104-ANALYSIS AND ASSESSMENT OF INCINERATED MUNICIPAL SLUDGE ASHES AND
              LEACHATE
                TASK =CC36 -S1TB24 **EPA=R806690-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 07/79 - 03/81 :   FY80
EPA  OFFICER.: AE ERALP              EPA/MERL - CINC                 FTS-8-684-7663
INVESTIGATOR.: TL THEIS              UNIV OF NOTRE DAME              DEPT OF CIVIL ENGIN
MILESTONES...: 11/79 -FIRST INTERIM REPORT
               02/80 -SECOND INTERIM REPORT
               12/80 -FINAL REPORT SUBMITTED
PROGRAM ID...: (PE-C36 )          URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
               30-99     ENVIRONMENTAL ENGINEERING
ORDIS CODES..: RECN-005104          SSIE-GMA  6231 1     EPA -R806690-01      ORD -RC10B30-5080
               PE  -C36
PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
               CATEGORY-RESEARCH     ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: THE OVERALL OBJECTIVE WILL BE TO CHARACTERIZE THE BULK AND SURFACE PROPERTIES OF INCINERATED MUNICIPAL WASTE SLUDGES. TO RELATE THESE CHARACTERISTICS TO THE AMOUNT OF METALS WHICH ARE LEACHABLE INTO AQUEOUS SOLUTION. THIS WILL INCLUDE AN EVALUATION OF THE MATERIALS UNDER THE GUIDELINES BEING FORMULATED UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (P.L. 94-580) APPROACH: THE ABOVE OBJECTIVES WILL BE ACCOMPLISHED BY THE FOLLOWING OUTPUT PLAN: 1) TO PREPARE AN INTERIM REPORT ON THE CURRENT LEVEL OF UNDERSTANDING OF THE PHYSICAL AND CHEMICAL CHARACTERISTICS OF MUNICIPAL SLUDGE, 2) TO PREPARE AN INTERIM REPORT ON THE ANALYTICAL PROCEDURES IN CHARACTERIZATION, AND 3) CONDUCT LABORATORY STUDIES AND PRESENT THE FINDINGS IN A FINAL REPORT.

*PROJECT: 005184-AEROSOL SULFUR TRANSPORT STUDIES

TASK =GC05 -000228 **EPA=R806693-01 ** (GRANT)
STARTING/ COMPLETION DATE : 05/79 - 05/82 : FY80

EPA OFFICER.: CF WALTERS EPA/ESRL - RTP FTS 8-629-2648
INVESTIGATOR.: JW WINCHESTER FLORIDA STATE UNIV ARTS & SCI/CHEM DEPT
MILESTONES...: 09/79 -COMPLETE SUMMER FIELD STUDY
09/80 -COMPLETE SUMMER FIELD STUDY
05/82 -DATA VOLUME AND ANALYSIS OF SULFUR AND TRACE METAL CONCENTRATIONS OVER EASTERN
PROGRAM ID...: (PE-C05) TRANS. AND FATE - AIR
FINAL OUTPUT.: DATA VOLUME AND ANALYSIS OF SULFUR AND TRACE METAL CONCENTRATIONS OVER EASTERN U.S.
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-005184 SSIE-GMA 6123 1 EPA -R806693-01 ORD -RG10B30-1080
LABN-G603A-AA-144 PE -C05
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: CHARACTERIZE THE OCCURRENCE OF SULFUR IN AEROSOL PARTICLES AT SAMPLING STATIONS IN LOCATIONS BETWEEN THE MID-CONTINENT AND EASTERN SEABOARD OF CONTINENTAL U.S.A. EMPHASIS IS BEING PLACED ON THE CONCENTRATIONS OF SULFUR IN RELATION TO OTHER ELEMENTS PRESENT IN THE AEROSOL AND ON THE TIME VARIABILITY OF THESE CONCENTRATIONS. APPROACH: CONTINUE THE PIXE (PROTON INDUCED X-RAY EMISSION) ANALYSIS OF TIME SEQUENCE STREAKER FILTER SAMPLES COLLECTED AT 9 CLASS I SITES OF THE SURE NETWORK. THE ASSOCIATIONS OF AEROSOL SULFUR CONCENTRATIONS AND THEIR TIME VARIABILITY WITH RELATIVE AND ABSOLUTE HUMIDITY, GASEOUS SO2, NOX, AND O3 CONCENTRATIONS, AND AIR FLOW TRAJECTORIES WILL BE GIVEN SPECIAL EMPHASIS.

*PROJECT: 005115-FEASIBILITY OF AUTOMATED COMBINED SEWER SYSTEMS ALLIED WITH METROPOLITAN FLOOD WARNING SYSTEMS

TASK =CC35 -S1T078 **EPA=R806702 ** (GRANT)
STARTING/ COMPLETION DATE : 07/79 - 02/81 : FY80

EPA OFFICER.: DC AMMON EPA/MERL - CINC FTS 8-340-6677
INVESTIGATOR.: MB MCPHERSON AMERICAN SOC OF CIVIL ENG RES & STANDARDS SERVS
MILESTONES...: 11/79 -CONTINUATION FUNDING PACKAGE PROCESSED
12/79 -RESULTS ON RADAR TECHNOLOGY
09/80 -SCOPE OF WORK COMPLETED
02/81 -FINAL REPORT PUBLISHED
PROGRAM ID...: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005115 SSIE-GMA 6214 1 EPA -R806702 ORD -RC10B30-1080
LABN-C822A-S1T078 PE -C35
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS PROJECT ARE TO EVALUATE THE FEASIBILITY OF AUTOMATED COMBINED CONTROL SYSTEMS UTILIZING INNOVATIVE RADAR SYSTEMS AND TO DEVELOP A STATE-OF-THE-ART REPORT THAT INTEGRATES TECHNOLOGIES FROM VARIOUS RELEVANT DEVELOPMENTAL PROJECTS. APPROACH: THE APPROACH TAKEN WILL BE TO INVESTIGATE CALIBRATED DIGITAL RADAR SYSTEMS FOR PRECIPITATION PREDICTIONS, STORM CHARACTERIZATION AND STORM TRACKING, INCLUDING IMPLICATIONS FOR TRADITIONAL AND AUTOMATED COMBINED SEWER SYSTEM DESIGN AND OPERATION.

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*PROJECT: 005573-WET-WEATHER MONITORING GUIDELINES

                 TASK =CC35 -S1T056 **EPA=R806704      ** (GRANT)
                 STARTING/ COMPLETION DATE : 07/79 - 03/81 :   FY80
EPA  OFFICER.: DC AMMON              EPA/MERL - CINC             FTS 8-340-6677
INVESTIGATOR.: LS TUCKER             DENVER URBAN DRNAGE & FLD   DENVER            CO 80211
               MB SONNEN             M B SONNEN CONSULT ENG      WALNUT CREEK      CA 94598
MILESTONES...: 09/79 -REVIEW "208" MONITORING PROGRAMS AND IDENTIFY MONITORING NEEDS
               12/79 -LITERATURE REVIEW COMPLETE
               08/80 -DESIGN AND SUBMIT USER'S MANUAL
               12/80 -PREPARE AND SUBMIT FINAL REPORT
               03/81 -PUBLISH FINAL REPORT
PROGRAM ID...: (PE-C35 )        WASTEWATER SYSTEMS CONTROL TECHNOLOGY
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005573         SSIE-GMA  5872 1     EPA -R806704        ORD -RC10B30-1080
               LABN-C822A-S1T056   PE  -C35
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED         ENTERED - UNKNOWN   UPDATED-  06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE PURPOSE OF THIS STUDY IS TO PRODUCE A USER'S MANUAL/GUIDEBOOK FOR WET-WEATHER FLOW
                QUALITY AND QUANTITY MONITORING PROVIDING A STATISTICALLY DEFENSIBLE MONITORING PROTOCOL AND
                MINIMUM REQUIREMENTS OF A DATA SET TO SATISFY ANY POSSIBLE MONITORING OBJECTIVES AND ASSURE
                TRANSFERABILITY OF DATA. APPROACH: VARIOUS NEEDS OR OBJECTIVES FOR WET-WEATHER MONITORING WILL BE
                IDENTIFIED AND ELABORATED UPON IN TERMS OF IMPORTANCE AND SIGNIFICANCE OF THE TYPES AND FREQUENCY
                OF SAMPLING ONE MIGHT CHOOSE TO EMPLOY.

*PROJECT: C04798-REDUCED VISIBILITY REGIONS AND ASSOCIATED LARGE-SCALE WEATHER SYSTEMS

                 TASK =G603A-AA-161 **EPA=R806705-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 08/79 - 07/81 :   FY79
EPA  OFFICER.: GC HOLZWORTH          EPA/ESRL - RTP              FTS 8-629-4551
INVESTIGATOR.: JG EDINGER            UNIV OF CALIFORNIA          SCH OF LETTERS & SCIENCE
MILESTONES...: 09/81 -REPORT ON CLIMATOLOGY OF REDUCED VISIBILITY REGIONS AND ASSOCIATED
PROGRAM ID...: (PE-603 )          TRANS. AND FATE -AIR
FINAL OUTPUT.: REPORT ON CLIMATOLOGY OF REDUCED VISIBILITY REGIONS
               AND ASSOCIATED WEATHER SYSTEMS.
MANDATE......: 10-02      CLEAN AIR ACT
CURR. RESULTS: INTERIM REPORT "ANALYSIS OF REDUCED VISIBILITY EPISODE OVER
               THE EASTERN US" PRESENTED AT 2ND JOINT CONFERENCE ON
               APPLICATIONS OF AIR POL. METEOR. 3/24-27/80, NEW ORLEANS.
ORDIS CODES..: RECN-004798         SSIE-GMA  5811       EPA -R806705-01     ORD -RG10B31-1079
               PE  -603
PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL        ENTERED - UNKNOWN   UPDATED-  JUL-SEP 79
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DEVELOP CLIMATOLOGY OF EXTENSIVE AREAS OF REDUCED VISIBILITY AND THE ASSOCIATED
                LARGE-SCALE WEATHER FEATURES, INCLUDING THE LIFE HISTORY OF THEIR INTERNAL DYNAMICS. APPROACH:
                STUDY INDIVIDUAL EPISODES OF REDUCED VISIBILITY (IN HAND) AND THE ASSOCIATED METEOROLOGICAL
                CONDITIONS AS DERIVED FROM ROUTINE OBSERVATIONS OF THE NATIONAL WEATHER SERVICE.
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*PROJECT: 005102-ENGINEERING DESIGN CONSIDERATIONS IN SELECTING CONVEYORS FOR RESOURCE
                 RECOVERY SYSTEMS
                   TASK =CC73 -S5T24C **EPA=R806709-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 08/79 - 12/80 :   FY80
  EPA  OFFICER.: CC WILES               EPA/MERL - CINC              FTS-8-684-7881
  INVESTIGATOR.: J  CAMPBELL            NATL CTR FOR RES RECOVERY    WASHINGTON          DC 20036
                 H  ALTER               NATL CTR FOR RES RECOVERY    WASHINGTON          DC 20036
  MILESTONES...: 08/80 -INTERIM REPORT AVAILABLE (TEST RIGS AND ESTABLISH VARIABLES)
                 08/80 -CONTINUATION PACKAGE PROCESSED
                 12/80 -REPORT DETAILING DESIGN CONSIDERATIONS REQUIRED FOR CONVEYORS USED TO PROCESS S
  PROGRAM ID...: (PE-C73 )          SOLID & HAZARDOUS WASTE
  FINAL OUTPUT.: REPORT DETAILING DESIGN CONSIDERATIONS REQUIRED
                 FOR CONVEYORS USED TO PROCESS SOLID WASTE.
  MANDATE......: 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                 10-13     SOLID WASTE DISPOSAL ACT
                 30-99     RESOURCE RECOVERY/SOLID WASTE MGMT
  ORDIS CODES..: RECN-005102          SSIE-GMA  6221 1      EPA -R806709-01      ORD -RC10B30-5080
                 PE  -C73
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DEVELOP ENGINEERING AND SCIENTIFIC DATA TO ENABLE THE PROPER DESIGN FOR CONVEYORS AND
                  OTHER MATERIALS HANDLING EQUIPMENT FOR PROCESSING MUNICIPAL SOLID WASTE, ESPECIALLY FOR RESOURCE
                  RECOVERY. APPROACH: TEST RIGS WILL BE SET UP WITH AVAILABLE EQUIPMENT TO SYSTEMATICALLY STUDY,
                  THROUGH EXPERIMENTATION, THE BASIC VARIABLES IMPORTANT IN THE MATERIALS HANDLING OF SOLID WASTE.
                  INFORMATION WILL BE USED TO SUPPLEMENT EXISTING DESIGN DATA FOR CONVEYORS USED IN OTHER
                  APPLICATIONS.

*PROJECT: 005163-SURVEY OF SLUDGES FOR PARASITIC CONTAMINATION IN THE NORTHERN UNITED
                 STATES AND DEVELOP STANDARD PROCEDURE FOR PARASITES
                   TASK =DC27 -1F0004 **EPA=R806711     ** (GRANT)
                   STARTING/ COMPLETION DATE : 08/79 - 07/81 :   FY80
  EPA  OFFICER.: NE KOWAL               EPA/HERL - CINC              FTS 8-684-7477
  INVESTIGATOR.: RS REIMERS             TULANE UNIV OF LOUISIANA     SCH PUB HLTH/TROP MED
                 MD LITTLE              TULANE UNIV OF LOUISIANA     SCH PUB HLTH/TROP MED
  MILESTONES...: 07/81 -DRAFT FINAL REPORT
  PROGRAM ID...: (PE-C27 )          HEALTH EFFECTS - WATER QUALITY
  FINAL OUTPUT.: PARASITES IN SLUDGE MANUAL
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
  ORDIS CODES..: RECN-005163          SSIE-GMA  6182 1      EPA -R806711         ORD -RD10B30-1080
                 LABN-D607A-005C      PE  -C27
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: (1) TO INVESTIGATE SELECTED MUNICIPAL SLUDGES IN THE NORTHERN PORTION OF THE UNITED
                  STATES FOR THE PRESENCE OF RESISTANT STAGES OF PARASITES AND TO COMPARE THE RESULTS WITH THE DATA
                  PREVIOUSLY COLLECTED IN THE SOUTHEASTERN UNITED STATES; (2) TO DEVELOP A STANDARD METHOD FOR
                  PARASITOLOGIC EXAMINATION OF WASTE SLUDGES AND TO PRODUCE A MANUAL FOR EXAMINATION OF SLUDGES FOR
                  USE BY WASTEWATER TECHNICIANS IN RELATIVELY SIMPLE LABORATORIES; AND (3) TO EVALUATE PROMISING
                  DECONTAMINATION TECHNIQUES FOR THEIR EFFECTIVENESS IN DESTROYING PARASITES IN WASTE SLUDGES.
                  APPROACH: STANDARD PARASITOLOGICAL TECHNIQUES.
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*PROJECT: 005325-AMBIENT PARTICLE SAMPLING SYSTEM

TASK =E883A-100003 **EPA=R806714-01 ** (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 10/80 : FY79

EPA OFFICER.: RM BURTON   EPA/EMSL - RTP   FTS 8-629-3123
INVESTIGATOR.: D LUNDGREN   STATE UNIV SYS OF FLORIDA   DEPT. OF ENVIRN. ENG
MILESTONES...: 10/79 -ESTABLISH DESIGN CRITERIA AND DRAWINGS
05/80 -CONSTRUCT AND ASSEMBLE SYSTEM INTO MOBLE VEHICLE
07/80 -VERIFY DESIGN AND OPERATION
08/80 -FIELD TEST AND PREPARE REPORT
09/80 -REVIEW FINAL REPORT
PROGRAM ID...: (PE-883)   MONITORING METHODS & SYSTEMS - AIR
MANDATE......: 10-02   CLEAN AIR ACT
20-20   AA FOR AIR AND WASTE MANAGEMENT
ORDIS CODES..: RECN-005325   SSIE-GMA 6376   EPA -R806714-01   ORD -RE10B30-5079
PE -883
PROJ STATUS..: PROJECT-ACTIVE   INFO-ORIGINAL   ENTERED - UNKNOWN   UPDATED- JAN-MAR 80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO PROVIDE AN AMBIENT PARTICLE SAMPLING SYSTEM FOR SIZE SELECTIVE MEASUREMENT OF ATMOSPHERIC PARTICULATE MATTER IN THE APPROXIMATE 10 TO 100 MICRONS AERODYNAMIC DIAMETER SIZE RANGE. APPROACH: TO DESIGN, FABRICATE, AND TEST A VERY LARGE VOLUME SAMPLER OPERATING AT A VERY LARGE FLOW RATE CAPABLE OF MAKING A DIRECT MASS MEASUREMENT BASED UPON AN INERTIAL OR AERODYNAMIC SIZE. THE DESIGN WILL INCORPORATE VERTICAL AEROSOL FLOW DOWNWARD INTO SEVERAL PARALLEL SINGLE STATE IMPACTORS, EACH WITH A DIFFERENT COLLECTION EFFICIENCY. BY DIFFERENCE, THE FRACTION BY MASS OF PARTICULATE MATTER IN EACH SIZE RANGE IS DETERMINED. CUT POINTS OF 60, 30, 15, AND 7.5 RUN TOGETHER WITH TOTAL SAMPLE WILL BE INCORPORATED.

*PROJECT: 005119-RESEARCH CONFERENCE ON STORMWATER IMPACT ON RECEIVING WATER BODIES

TASK =CC35 -S2T032 **EPA=R806715 ** (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 05/80 : FY80

EPA OFFICER.: RB TURKELTAUB   EPA/MERL - CINC   FTS-8-340-6675
INVESTIGATOR.: YA YOUSEF   STATE UNIV SYS OF FLORIDA   SCH OF ENGINEERING
MILESTONES...: 11/79 -CONFERENCE
01/80 -DRAFT OF CONFERENCE PROCEEDINGS
05/80 -CONFERENCE PROCEEDINGS
PROGRAM ID...: (PE-C35)   WASTEWATER SYSTEMS CONTROL TECHNOLOGY
FINAL OUTPUT.: CONFERENCE PROCEEDINGS
MANDATE......: 10-01   FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005119   SSIE-GMA 6211 1   EPA -R806715   ORD -RC10B30-1080
LABN-C822A-S2T032   PE -C35
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: A) TO PROVIDE AN OPPORTUNITY FOR RESEARCHERS, PRACTITIONERS AND OTHERS TO RECEIVE AN UP-DATE ON THE STATE-OF-THE-ART AND TO LEARN ABOUT RESEARCH FINDINGS DEALING WITH STORMWATER IMPACT ON RECEIVING WATER BODIES, AND B) TO GATHER TOGETHER THOSE WHO ARE INTERESTED IN STORMWATER EFFECTS AND CONTROL FOR DIALOGUE REGARDING THE IMPLICATIONS AND APPLICATIONS OF CURRENT RESEARCH RESULTS. APPROACH: THE UNIVERSITY OF CENTRAL FLORIDA (UCF) THROUGH THE COLLEGE OF ENGINEERING AND THE DIVISION OF CONTINUING EDUCATION PROPOSES TO CONDUCT A TWO-DAY CONFERENCE ON STORMWATER IMPACT ON RECEIVING WATER BODIES TO BE HELD DURING NOVEMBER 26-27, 1979.

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*PROJECT: 006053-INVESTIGATION OF THE EFFECT OF ELECTROSTATIC PRECIPITATORS, SCRUBBERS,
                 AND BAGHOUSE ON IN-STACK OPACITY
                   TASK =F830M-792180 **EPA=R806718     ** (GRANT)
                   STARTING/ COMPLETION DATE : 08/79 - 08/80 :   FY79
  EPA  OFFICER.: LE SPARKS                EPA/IERL - RTP                FTS 8-629-2925
  INVESTIGATOR.: S  COWEN                 ATMOSPHERIC RES GROUP INC     ALTADENA            CA 91001
  PROGRAM ID...: (PE-830 )          FLUE GAS PARTICULATE CONTROL -ENERGY
  MANDATE......: 20-23     DAA FOR AIR QUALITY PLANNING AND STANDARDS
  ORDIS CODES..: RECN-006053        SSIE-GMA  6490       EPA -R806718       ORD -RF10B30-2079
                 PE  -830
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL        ENTERED - 06-28-80   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DEVELOP METHODS FOR PREDICTING IN-STACK OPACITY FROM KNOWLEDGE OF PARTICULATE DATA AND
                  PARTICULATE CONTROL EQUIPMENT PERFORMANCE. APPROACH: REPORT ON DESIGN TOOLS SUCH THAT PARTICULATE
                  CONTROL EQUIPMENT CAN BE DESIGNED TO MEET BOTH MASS EMISSION AND OPACITY STANDARDS. USEFUL TO
                  VENDORS, UTILITIES, CONTROL AGENCIES AND STANDARD SETTING GROUPS.

*PROJECT: 005926-IMPROVED BIOLOGICAL WASTEWATER TREATMENT FOR AMMONIA REDUCTION IN STEEL
                 INDUSTRY WASTEWATERS
                   TASK =F610B-792940 **EPA=R806724     ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/79 - 09/80 :   FY79
  EPA  OFFICER.: JS RUPPERSBERGE          EPA/IERL - RTP                919-541-2733
  INVESTIGATOR.: RD NEUFELD               UNIV OF PITTSBURGH            DEPT. OF CIVIL ENG
  PROGRAM ID...: (PE-610 )          INDUSTRIAL PROC. - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005926        SSIE-GMA  6487       EPA -R806724       ORD -RF10B31-1079
                 PE  -610
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL        ENTERED - 06-28-80   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: INVESTIGATE THE CAUSE OF BIOLOGICAL NITRIFICATION PROCESS INSTABILITY AS CURRENTLY
                  OBSERVED IN STEEL INDUSTRY WASTEWATER TREATMENT FACILITIES.
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*PROJECT: 005227-PERSISTENCE AND TOXIC PERTURBATION EFFECTS IN MODEL ECOSYSTEMS

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                TASK =KC1V -000339 **EPA=R806726-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 00/79 - 06/82 :   FY80
EPA  OFFICER.: RR LASSITER              EPA/ERL - ATHENS                FTS-8-250-3103
INVESTIGATOR.: TG HALLAM                UNIV OF TENNESSEE               KNOXVILLE              TN 37916
MILESTONES...: 06/80 -PROGRESS REPORT
               06/81 -PROGRESS REPORT
PROGRAM ID...: (PE-C1V )              TRANSPORT AND FATE  - TOXICS
MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
CURR. RESULTS: REVIEW OF LETERATURE ON EFFECTS OF HEAVY METALS,
               PESTICIDES, AND TEMPERATURES ON PREDATOR PREY
               RELATIONSHIPS.
ORDIS CODES..: RECN-005227         SSIE-GMA  6170 1      EPA -R806726-01      ORD -RK10B30-1080
               LABN-K760C-339      PE  -C1V
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: TO EXPLORE AND FURTHER DEVELOP THE MATHEMATICAL THEORY OF PERSISTENCE OF BIOLOGICAL COMMUNITIES, WHICH WILL ENCOMPASS PERSISTENCE IN GENERAL AND AS A CONSEQUENCE OF PERTURBATIONS SUCH AS THOSE THAT RESULT FROM THE INTRODUCTION OF TOXIC SUBSTANCES. APPROACH: MATHEMATICAL ANALYSIS USING DIFFERENTIAL INEQUALITIES APPROACH OF ECOSYSTEM MODEL BEHAVIOR NEAR EXTINCTION BOUNDARIES.

*PROJECT: 005207-LONG TERM MEASUREMENTS OF SELECTED TRACE CONSTITUENTS IN AIR

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                TASK =G760C-DA-015 **EPA=R806729-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 09/79 - 12/82 :   FY79
EPA  OFFICER.: JW SPENCE                EPA/ESRL - RTP                  FTS 8-629-2998
INVESTIGATOR.: HB SINGH                 S R I INTERNATL                 MENLO PARK             CA 94025
MILESTONES...: 10/80 -REPORT ON ATMOSPHERIC LOADINGS AND FATE OF TRACE POLLUTANTS
               12/82 -FINAL REPORT ON TRACE CONSTITUENTS
PROGRAM ID...: (PE-760 )              TRANSPORT AND FATE -TOXIC SUBSTANCES
FINAL OUTPUT.: REPORT ON TRACE CONSTITUENTS
MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
CURR. RESULTS: DATA BASE COMPILED OF ATMOSPHERIC LOADINGS OF TRACE
               POLLUTANTS AT URBAN, RURAL, AND REMOTE SITES WITHIN
               NORTHERN HEMISPHERE AND SOME IN SOUTHERN HEMISPHERE.
ORDIS CODES..: RECN-005207         SSIE-GMA  6120        EPA -R806729-01      ORD -RG10B31-1079
               PE  -760
PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL         ENTERED - UNKNOWN    UPDATED-  OCT-DEC 79
               CATEGORY-RESEARCH   ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROGRAM IS TO DETERMINE THE TROPOSPHERIC BURDEN AND FATE OF TRACE POLLUTANTS (HALOGENATED HYDROCARBONS SF6, NITROGEN SPECIES, AND LIGHT HYDROCARBONS) AT A REMOTE CLEAN SITE. THE RESULTING DATA BASE WILL BE USED TO DERIVE SEASONAL VARIATIONS AS WELL AS ATMOSPHERIC GROWTH PATTERNS OF THESE POLLUTANTS. APPROACH: AMBIENT AIR AND SEAWATER SAMPLES WILL BE COLLECTED ON A BIWEEKLY BASIS AT A REMOTE SITE ON THE CALIFORNIA COAST. SAMPLES WILL BE COLLECTED IN STAINLESS STEEL AND GLASS CONTAINERS AND THEN IMMEDIATELY ANALYZED BY GAS CHROMATOGRAPHIC/COULOMETRIC MEASUREMENT TECHNIQUES. PROGRSS: A DATA BASE HAS BEEN COMPILED OF THE ATMOSPHERIC LOADINGS OF THESE TRACE POLLUTANTS AT URBAN, RURAL, AND REMOTE SITES WITHIN THE NORTHERN HEMISPHERE AND TO A LESSER EXTENT WITHIN THE SOUTHERN HEMISPHERE.

*PROJECT: 005307-SAMPLING AND ANALYTICAL PROBLEMS IN AIR POLLUTION MONITORING

TASK =E800 -000006 **EPA=R80673401 ** (GRANT)
STARTING/ COMPLETION DATE : 07/79 - 06/80 : FY79

EPA OFFICER.: JC PUZAK EPA/EMSL - RTP FTS 8-629-2220
INVESTIGATOR.: JJ WESOLOWSKI STATE DEPT OF HEALTH RES FOR CANCER EPIDEM
BR APPEL STATE DEPT OF HEALTH RES FOR CANCER EPIDEM
MILESTONES...: 12/79 -LEAD EXTRACTION STUDY COMPLETE
06/80 -ARSENIC SAMPLING AND ANALYSES COMPLETE
PROGRAM ID...: (PE-800) QUALITY ASSURANCE -AIR
FINAL OUTPUT.: ARSENIC SAMPLING AND ANALYSES COMPLETE
MANDATE......: 30-99 CHEMISTRY
ORDIS CODES..: RECN-005307 SSIE-GMA 6374 EPA -R80673401 ORD -RE10B30-3079
PE -800
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: THE OBJECTIVES ARE TO (1) MINIMIZE NITRATE LOSSES FROM INHALED PARTICULATE SAMPLES, (2) IMPROVE SAMPLING PROCEDURES FOR ARSENIC, (3) MINIMIZE HANDLING LOSSES FOR INHALED PARTICULATE SAMPLES, AND (4) IMPROVE EXTRACTION EFFICIENCIES FOR SEVERAL LEAD COMPOUNDS FOUND IN SMELTERS.APPROACH: NITRATE STABILITY ON TEFLON FILTERS AT ROOM TEMPERATURE AND COLD STORAGE CONDITIONS WILL BE COMPARED TOGETHER WITH THE EFFICIENCY OF FOUR METHODS FOR AQUEOUS EXTRACTION OF NITRATE. TECHNIQUES FOR MINIMIZING BACTERIAL OXIDATION-REDUCTION OF NITROGEN SPECIES WILL BE EVALUATED. ARSENIC WILL BE SAMPLED WITH SYSTEMS PERMITTING RETENTION OF GAS PHASE ARSENIC BY ADSORPTION ON ALUMINA OR A POLYMERIC ABSORBENT. AN ANALYTICAL METHOD FOR TOTAL ARSENIC (ACID DIGESTION, FLAME ATOMIC ABSORPTION) WILL BE EVALUATED FOR PRECISION. ACCURACY, WORKING RANGE AND INTERFACE EFFECTS. THE EXTENT OF LOSS OF PARTICLES WILL BE MEASURED USING TEFLON LO-VOL FILTER SAMPLES FROM DICHOTOMOUS SAMPLERS. TARED BAGS TO RETAIN PARTICULATE MATTER LOST FROM THE FILTERS WILL BE EVALUATED AND COMPARED TO PARTICLE WEIGHT LOSS WHEN SUCH FILTERS ARE FOLDED. USING GLASS FIBER HI-VOL SAMPLES COLLECTED NEAR LEAD AND COPPER SMELTERS, THE EFFICIENCY FOR LEAD EXTRACTION OF VARYING MIXTURES OF ACIDS WILL BE EVALUATED RELATIVE TO TOTAL LEAD MEASUREMENTS BY X-RAY FLUORESCENCE ANALYSIS.

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*PROJECT: 005261-EFFECT OF DIET ON LAB RAISED LARVAL WINTER FLOUNDER FOR TOXICOLOGICAL
                 STUDIES
                   TASK =P608C-000029 **EPA=R806735     ** (GRANT)
                   STARTING/ COMPLETION DATE : 07/79 - 07/82 :   FY79
  EPA  OFFICER.: AD BECK                  EPA/ERL - NARR                 FTS 8-838-4843
  INVESTIGATOR.: KL SIMPSON               UNIV OF RHODE ISLAND           DEPT. OF FOOD SCI. TECH.
  MILESTONES...: 07/79 -INITIATE
  PROGRAM ID...: (PE-608 )         ECOLOGICAL PROCESSES AND EFFECTS
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  CURR. RESULTS: 5 ARTEMIA STRAINS EVALUATED AS DIET FOR MARINE
                 ANIMALS USED IN TOXICOLOGICAL STUDIES.  A STRAIN FROM
                 BRAZIL PROVIDED ACCEPTABLE SURVIVAL AND GROWTH.
                 THE SAN PABLO BAY, CA. USA STRAIN CAUSED SIGNIFICANT
                 MORTALITIES.
  ORDIS CODES..: RECN-005261        SSIE-GMA  6173       EPA -R806735         ORD -RP10B30-1079
                 PE  -608
  PROJ STATUS..: PROJECT-ACTIVE     INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  OCT-DEC 79
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DEVELOP METHODS AND TECHNIQUES FOR CONDUCTING NUTRITIONAL ASSAYS WITH WINTER FLOUNDER
                  LARVAE IN ORDER TO DETERMINE THE EFFECTS OF FEEDING VARIOUS STRAINS OF ARTEMIA ON LARVAL GROWTH AND
                  SURVIVAL. DESIGN AND CONDUCT PRELIMINARY EXPERIMENTS TO DETERMINE POTENTIAL PESTICIDE (CONTAMINANT)
                  ACCUMULATION IN THE LABORATORY FOOD CHAIN, RICE BRAN ARTEMIA WINTER FLOUNDER LARVAE, AND RELATE THE
                  EFFECTS OF DIET QUALITY ON RESULTS OF TOXICOLOGICAL BIOASSAYS. APPROACH: ARTEMIA STRAINS WILL BE
                  OBTAINED AND THEIR NUTRITIONAL VALUE TO FLOUNDER LARVAE WILL BE EVALUATED. A SUITABLE STRAIN WILL
                  BE SELECTED FOR FURTHER WORK. A LIPID MODIFIED RICE BRAN WILL BE FED TO ARTEMIA TO OBTAIN A LIPID
                  MODIFIED ARTEMIA. THESE ARTEMIA WILL ALSO BE REARED ON A LABELLED PESTICIDE DIET AND FED TO LARVAL
                  FLOUNDER TO EVALUATE POTENTIAL BIOACCUMULATION. SUBSEQUENT PESTICIDES AND LIPID LEVEL INTERACTION
                  WILL BE ASSESSED.

*PROJECT: 005123-DEMONSTRATION OF THE TECHNOLOGY FOR POTABLE REUSE OF WASTEWATER

                   TASK =CC35 -S00410 **EPA=S806736-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 10/79 - 03/81 :   FY80
  EPA  OFFICER.: JN ENGLISH               EPA/MERL - CINC                513-684-7613
  INVESTIGATOR.: DG ARGO                  ORANGE COUNTY WATER DISTRICT   FOUNTAIN VALLEY        CA 92708
                 PL MCCARTY               STANFORD UNIV                  STANFORD               CA 94305
  MILESTONES...: 03/81 -REPORT DESCRIBING RESULTS PUBLISHED 9/81
  PROGRAM ID...: (PE-C35 )         WASTEWATER SYSTEMS CONTROL TECHNOLOGY
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
                 20-13     DAA FOR DRINKING WATER
  ORDIS CODES..: RECN-005123        SSIE-GMA  6209 1     EPA -S806736-01      ORD -RC10B30-5080
                 PE  -C35
  PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  06-28-80
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: PROVIDE SUFFICIENT LONG-TERM DATA ON THE PERFORMANCE, RELIABILITY, AND COST OF A 15 MGD
                  FULL-SCALE ADVANCED WASTEWATER TREATMENT SYSTEM TO PERMIT EVALUATION OF ITS FEASIBILITY FOR THE
                  PRODUCTION OF RECLAIMED WATER FOR POTABLE USE. APPROACH: DOCUMENT OPERATION PROBLEMS AND COSTS OF
                  AWT. EVALUATE STATISTICAL RELIABILITY OF THE TREATMENT SYSTEM TO MEET CURRENT EPA DRINKING WATER
                  STANDARDS. DETERMINE EFFICIENCY OF PROCESSES TO REMOVE TRACE CONTAMINANTS. DOCUMENT THE
                  EFFECTIVENESS OF THE TREATMENT SYSTEM TO REMOVE MUTAGENIC MATERIALS. EVALUATE SURROGATE PARAMETERS
                  AS INDICATORS OF TREATMENT EFFECTIVENESS OF REMOVING CONTAMINANTS OF HEALTH CONCERN.
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•PROJECT: 005449-PLANKTONIC FOOD CHAINS AND IMPACT OF PCB'S IN GRAND TRAVERSE AND SAGINAW BAY
TASK =N769 -000055 ••EPA=R8C6742 •• (GRANT)
STARTING/ COMPLETION DATE : 00/79 - 08/81 : FY79

EPA OFFICER.: WL RICHARDSON   EPA/ERL - DULUTH   FTS 8-226-7811
INVESTIGATOR.: DC MCNAUGHT   STATE UNIV OF NEW YORK   ARTS & SCI/BIOL SCI
MILESTONES...: 08/81 -FINAL REPORT
PROGRAM ID...: (PE-769)   GREAT LAKES PROGRAM
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-03 TOXIC SUBSTANCES CONTROL ACT
20-R05 EPA REGION V
30-99 ZOOLOGY
ORDIS CODES..: RECN-005449   SSIE-GMA 6309   EPA -R806742   ORD -RN10B30-5079
PE -769
PROJ STATUS..: PROJECT-ACTIVE   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- JAN-MAR 80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DETERMINE FATE OF PRIMARY PRODUCTION IN GRAND TRAVERSE BAY ECOSYSTEM. DETERMINE ACUTE TOXICITY OF 2-2' PCB TO THE GREAT LAKES. APPROACH: EXAMINE THE RELATIVE CENTROL OF ALGAL PRODUCTION BY GRAZING. THE TRANSFORMA..ON AND RELEASE THROUGH EGESTION AND EXCRETION. TAGGED FOODS ('4C) WILL BE USED. PCB TOXICITY WILL BE USED USING (3H) TAGGED PURE ISOMERS.

•PROJECT: 006018-BUFFER ADDITIVES FOR STACK GAS DESULFURIZATION BY CAO/CACO3 SLURRY
TASK =F828K-791830 ••EPA=R806743 •• (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 08/81 : FY79

EPA OFFICER.: RH BORGWARDT   EPA/IERL - RTP   FTS 8-629-2336
INVESTIGATOR.: GT ROCHELLE   UNIV OF TEXAS   SCH OF ENG/CHEM ENG
PROGRAM ID...: (PE-828)   FLUE GAS SULPHUR OXIDE CONTROL -ENERGY
MANDATE......: 20-23 DAA FOR AIR QUALITY PLANNING AND STANDARDS
ORDIS CODES..: RECN-006018   SSIE-GMA 6486   EPA -R806743   ORD -RF10B30-2079
PE -828
PROJ STATUS..: PROJECT-ACTIVE   INFO-ORIGINAL   ENTERED - 06-28-80   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DEFINE THE RELATIVE POTENTIAL OF BUFFER ADDITIVES SUCH AS ADIPIC, SULFOSUCCINIC, SULFOPROPIONIC, PHTHALIC, HYDROXY-PROPIONIC AND ACETIC ACIDS. THE EFFECTIVENESS OF EACH IN PROMOTING SO2 REMOVAL IN LIMESTONE SCRUBBERS WILL BE DETERMINED AS WELL AS ITS RELATIVE SUSCEPTIBILITY TO DEGRADATION. APPROACH: PROVIDE DATA TO ASSIST IERL-RTP IN SELECTING THE MOST PROMISING SCRUBBER ADDITIVES FOR FULL-SCALE FGD TESTING.

•PROJECT: 005234-ASSESSMENT OF PESTICIDE LEACHING PROTOCOLS FOR USE WITH TOXIC ORGANIC SUBSTANCES
TASK =L760C-4-0001 ••EPA=R806744-01 •• (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 09/82 : FY79

EPA OFFICER..: AG HORNSBY EPA/ERL - ADA FTS 8-743-2303
INVESTIGATOR.: PV RAO STATE UNIV SYS OF FLORIDA SOIL SCI DEPT
MILESTONES....: 09/82 -PROJECT COMPLETION REPORT DETAILING THE WORK CONDUCTED AND RESULTS FOUND DURING
PROGRAM ID....: (PE-760) TRANSPORT AND FATE -TOXIC SUBSTANCES
FINAL OUTPUT.: REPORT DETAILING WORK CONDUCTED AND RESULTS FOUND.
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: LAB. EQUIPMENT AND TECHNIQUES HAVE BEEN SET UP FOR PROJECT ACTIVITIES.
ORDIS CODES..: RECN-005234 SSIE-GMA 6153 EPA -R806744-01 ORD -RL10B30-1079
PE -760
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVES: 1. DETERMINE THE APPLICABILITY OF PESTICIDE LEACHING PROTOCOLS FOR MEASURING LEACHING CHARACTERISTICS OF SELECTED TOXIC ORGANIC SUBSTANCES (IDENTIFIED BY U.S. ENVIRONMENTAL PROTECTION AGENCY AS PRIORITY POLLUTANTS) IN SOILS; 2. IDENTIFY AND DOCUMENT IN DETAIL ANY PROCEDURAL MODIFICATIONS THAT ARE REQUIRED TO ADAPT THE PESTICIDE LEACHING PROTOCOLS TO TOXIC ORGANIC SUBSTANCES; 3. QUANTIFY PROCEDURAL AND OPERATOR VARIABILITY INHERENT TO THE PESTICIDE LEACHING PROTOCOLS AND IDENTIFY POSSIBLE PROCEDURES FOR MINIMIZING SUCH VARIABILITY; AND 4. EVALUATE THE TIME AND RESOURCES REQUIRED TO MEASURE LEACHING CHARACTERISTICS OF TOXIC ORGANIC SUBSTANCES. APPROACH: DURING THE EARLY PERIOD OF THE PROJECT, FIVE ORGANIC CHEMICALS AND FOUR SOILS WILL BE USED TO ASSESS THE UTILITY OF PESTICIDE PROTOCOLS FOR MEASURING LEACHING CHARACTERISTICS OF TOXIC ORGANIC SUBSTANCES IN SOILS. THE LEACHING CHARACTERISTICS OF PESTICIDES AND TOXIC ORGANIC SUBSTANCES WILL BE DETERMINED USING: SOIL THIN-LAYER CHROMATOGRAPHY (SOIL-TLC), TRANSIENT WATER FLOW IN AIR-DRY SOIL COLUMNS, AND MISCIBLE DISPLACEMENT THROUGH WATER-SATURATED SOIL COLUMNS. DURING THE INITIAL STAGES OF THE PROJECT, TWO PESTICIDE COMPOUNDS WILL BE USED TO TEST THE AGREEMENT BETWEEN THE LEACHING AND ADSORPTION PROTOCOLS FOR ESTIMATING THE POTENTIAL FOR ORGANIC CHEMICAL MOBILITY IN SOILS.

•PROJECT: 005121-FIELD EVALUATION OF SWIRL GRIT SEPARATOR AT TAMWORTH, N.S.W. AUSTRALIA

TASK =CC35 -S2T031 ••EPA=R806746 •• (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 05/80 : FY80

EPA OFFICER.: R FIELD EPA/MERL - CINC 201-321-6674
INVESTIGATOR.: GJ SHELLEY G. J. SHELLEY CONSLT ENG CAMMERAY AUSTRALIA
MILESTONES...: 12/79 -COMPLETE DATA COLLECTION
02/80 -DATA EVALUATION COMPLETE
03/80 -REPORT SUBMITTED
06/80 -FULL-SCALE SWIRL DEGRITTER EVALUATION REPORT
PROGRAM ID...: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
FINAL OUTPUT.: FULL-SCALE SWIRL DEGRITTER EVALUATION REPORT
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005121 SSIE-GMA 6215 1 EPA -R806746 ORD -RC10B30-1080
PE -C35
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: 1. TEST THE EFFICIENCY OF A FULL-SCALE 16.4 FT (5M) DIAMETER SWIRL GRIT SEPARATOR (BASED ON THE EPA DESIGN MANUAL) UNDER VARYING FLOW CONDITIONS AND WITH DIFFERENT SOLID CONCENTRATIONS. 2. ESTABLISH THE PERCENTAGE OF REMOVAL OF SUSPENDED SOLIDS AND THE PERCENTAGE OF REMOVAL OF THE GRIT. APPROACH: A BASIC TEST PROGRAM WILL BE FOLLOWED. REPRESENTATIVE SAMPLES OF UNTREATED WATER (BEFORE SWIRL ENTRY) AND TREATED WATER (AFTER SWIRL TREATMENT) WILL BE COLLECTED. FLOW RATE AND RIVER STAGES WILL BE CONCURRENTLY RECORDED. SAMPLES WILL BE COLLECTED AT PREDETERMINED FLOW RATES WITH VARYING RIVER HEIGHTS. LAB RESULTS (DETERMINATION OF SOLIDS CONCENTRATION) WILL BE ANALYZED FOR SWIRL EFFICIENCY DETERMINATIONS.

•PROJECT: 005916-MEASUREMENT AND CONTROL OF WIND BLOWN DUST

TASK =F604B-792960 ••EPA=R806747 •• (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 08/80 : FY79

EPA OFFICER.: RV HENDRIKS EPA/IERL - RTP FTS 8-629-2733
INVESTIGATOR.: SL SOO UNIV OF ILLINOIS SCH OF ENG/CIV ENG DEPT
PROGRAM ID...: (PE-604) INDUSTRIAL PROC. - AIR
ORDIS CODES..: RECN-005916 SSIE-GMA 6498 EPA -R806747 ORD -RF10B30-1079
PE -604
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: CONDUCT WIND TUNNEL TESTS TO DETERMINE THE EFFECT OF STORAGE PILE CONFIGURATION AND THE USE OF WIND BARRIERS TO REDUCE WIND BLOWN DUST. THE NATURE OF DUST GENERATION AND ENTRAINMENT WILL ALSO BE DETERMINED. VARIOUS METHODS OF STORAGE PILE TREATMENT WILL BE EVALUATED USING A STANDARD TEST DEVELOPED BY THIS PROJECT. APPROACH: OBTAIN DATA FOR USE BY REGULATORY, INDUSTRIAL, ACADEMIC AND OTHERS CONCERNED WITH IRON AND STEEL AIR POLLUTION ABATEMENT.

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*PROJECT: 005270-FIFTH BIENNIAL INTERNATIONAL ESTUARINE RESEARCH CONFERENCE

               TASK =W820 -000020 **EPA=R806753-01  ** (GRANT)
               STARTING/ COMPLETION DATE : 00/79 - 12/79 :   FY79
  EPA  OFFICER.: S  WILLIAMS            EPA/OEPER- DAA                202-755-2755
  INVESTIGATOR.: M  CASTAGNA            ESTUARINE RES FEDERATION      WACHAPREAGUE         VA 23480
                 R  BIGGS               ESTUARINE RES FEDERATION      WACHAPREAGUE         VA 23430
  MILESTONES...: 08/80 -PUBLICATION OF CONFERENCE PROCEEDINGS
  PROGRAM ID...: (PE-820 )          FRESHWATER ECO EFFECTS   - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 10-11     MARINE PROTECTION. RESEARCH AND SANCTUARIES ACT
                 10-14     NATIONAL ENVIRONMENTAL POLICY ACT
  ORDIS CODES..: RECN-005270        SSIE-GMA  6206       EPA -R806753-01      ORD -RW10B30-1079
                 PE  -820
  PROJ STATUS..: PROJECT-ACTIVE     INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  OCT-DEC 79
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: CONFERENCE ON RECENT ADVANCES IN ESTUARINE RESEARCH. APPROACH: THROUGH A SERIES OF FORMAL
                  AND INFORMAL PRESENTATIONS THE CONFERENCE WILL PROVIDE FOR THE EFFECTIVE EXCHANGE OF INFORMATION
                  AMONG SCIENTISTS ON CURRENT RESEARCH IN ESTUARINE AND COASTAL PROCESSES. A PUBLISHED PROCEEDING OF
                  THE CONFERENCE WILL BE AVAILABLE.

*PROJECT: 005451-EXAMINATION OF SEDIMENT EMISSION AND ACCUMULATION OF DISSOLVED GASES IN
                 LAKE ERIE HYPOLIMNION
               TASK =N769 -000057 **EPA=R806757     ** (GRANT)
               STARTING/ COMPLETION DATE : 05/79 - 09/79 :   FY79
  EPA  OFFICER.: NA THOMAS              EPA/ERL - DULUTH              FTS 8-226-7811
  INVESTIGATOR.: DD ADAMS               WRIGHT STATE UNIV             GRADUATE SCH
  MILESTONES...: 05/79 -ECOL. SERIES REPORT
                 06/79 -STUDY PLAN
                 09/79 -FIELD COLLECTION
  PROGRAM ID...: (PE-769 )          GREAT LAKES PROGRAM
  FINAL OUTPUT.: ECOLOGICAL SERIES REPORT
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 20-R05    EPA REGION V
                 30-99     LIMNOLOGY
  CURR. RESULTS: GASES HAVE BEEN COLLECTED FROM THREE CRUISES
  ORDIS CODES..: RECN-005451        SSIE-GMA  6312       EPA -R806757         ORD -RN10B30-5079
                 PE  -769
  PROJ STATUS..: PROJECT-ACTIVE     INFO-ORIGINAL        ENTERED - UNKNOWN    UPDATED-  JAN-MAR 80
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVES: TO DETERMINE PRODUCTION AND COMPOSITION OF BENTHIC GASES FROM LAKE ERIE SEDIMENTS.
                  APPROACH: GASES WILL BE COLLECTED FROM BENTHIC CHAMBERS. ACCUMULATION OF REDUCED GASES (H2, CH4,
                  CO, C2H6) WILL BE RELATED TO HYPOLIMNETIC OXYGEN DEMAND.
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*PROJECT: 005216-X-RAY DIFFRACTION ANALYSIS OF DICHOTOMOUS FILTER SAMPLERS

                  TASK =GC20 -000563 **EPA=R806769-01S1** (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 11/82 :    FY80
 EPA  OFFICER.: RK STEVENS               EPA/ESRL - RTP                 FTS 8-629-3155
 INVESTIGATOR.: BL DAVIS                 SO DAKOTA SCHOOL OF MINES      INST. OF ATMOS. SCI.
 MILESTONES...: 08/80 -INTERIM REPORT ON CALIBRATION METHODS FOR X-RAY DIFFRACTION
                08/80 -ANALYSIS OF AEROSOLS COLLECTED WITH DICHOTOMOUS SAMPLERS
                08/82 -REPORT ON RESULTS OF X-RAY DIFFRACTION ANALYSIS OF AEROSOLS COLLECTED WITH DICH
 PROGRAM ID...: (PE-C2Q )            MEASURE SYS & INSTR. DEVEL FOR ENERGY REL POLL
 FINAL OUTPUT.: REPORT ON RESULTS OF X-RAY DEFRACTION ANALYSIS OF
                AEROSOLS COLLECTED WITH DICHOTOMOUS SAMPLERS.
 MANDATE......: 10-02      CLEAN AIR ACT
 CURR. RESULTS: COMPARISON OF [illegible] OBTAINED WITH X-RAY FLUORESCENCE
                ANALYSIS OF SAME SAMPLES.  XRF DATA BEING PROVIDED TO
                ASSIST IN CALIBRATION OF X-RAY DIFFRACTION SYSTEM.
                SOIL SAMPLES BEING OBTAINED TO DETERMINE MORPHOLOGICAL
                CHARACTER OF AEROSOLS EMANATING FROM EROSION PROCESSES
                WHICH MAY BE TRANSPORTED DOWNWIND OF EPA SAMPLING SITES.
 ORDIS CODES..: RECN-005216          SSIE-GMA  6168 1      EPA -R806769-01S1     ORD -RG10B30-1080
                LABN-G832B-EA-202    PE  -C2Q
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: DEVELOP CALIBRATION AND ANALYSIS PROCEDURES MORPHOLOGY OF SIZE FRACTIONATED AEROSOLS.
                 APPROACH: DEVELOPMENT OF PROGRAMS TO DETERMINE THE CHEMICAL NATURE OF THE AEROSOLS COLLECTED WITH
                 DICHOTOMOUS SAMPLER FROM THE X-RAY DIFFRACTION SPECTRUM AND DEVELOPMENT OF AEROSOL STANDARDS TO
                 CALIBRATION X-RAY DIFFRACTION SYSTEM.
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220.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R 806771-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Development of Strategies Optimizing Non-Chemical Approaches to Managing Mosquito Populations in Freshwater Irrigated Cropping Systems Using Riceland Agroecosystem as a Model

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

J. K. Olson, Assoc. Prof., Dept. of Entomol., Texas A&M Univ. (Project Director); M. V. Meisch, Prof., Dept. of Entomol., Univ. of Ark. (Project Co-Director); C. D. Steelman, Prof., Dept. of Entomol., Louisiana State Univ.; C. H. Schaeffer, Entomologist, Director of Mosquito Res. Lab., Univ. Cal.-Berkeley; R. K. Washino, Assoc. Prof., Dept. of Entom., Univ. of Cal.-Davis; B. R. Norment, Assoc. Prof., Dept. of Entom., Miss. State Univ.

NAME AND ADDRESS OF APPLICANT INSTITUTION

Texas A&M Research Foundation
Faculty Exchange Box H
College Station, TX 77843

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

1) OBJECTIVES: The primary goal of the proposed program is to direct a coordinated, multi-institutional, multi-disciplinary research effort toward gathering scientific knowledge necessary to develop and implement IPM schemes designed to maximize the use of non-chemical methods to effectively suppress mosquito populations associated with irrigated cropping systems in the U.S. using the riceland agroecosystem as a model.

2) APPROACH: The organization of the program is such that each participating institution has developed specific sets of research objectives designed to provide packages of data and information toward the accomplishment of 2 major research program tasks: a) The Riceland Agroecosystems Analysis Research Task and b) The Mosquito Management Methodology Research Task. Objectives under Task (a) will supply the biological and ecological information on the Riceland Agroecosystems, and the associated mosquito populations that will be basic to developing mosquito management schemes. Task (b) will supply the information key to assessing the efficacy, environmental impact and economic feasibility of implementing individual mosquito suppression approaches and essential to effectively integrating these approaches into management schemes for riceland mosquitoes.

3) CURRENT PLANS: Research efforts under both Tasks will be initiated as soon as the project is funded.

220.2

U.S. ENVIRONMENTAL PROTECTION AGENCY

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OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. (Do not use this space)
SSIE
EPA
R806778 01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT A Study of the Impact of Discharged Drilling Fluids on the Georges Bank Environment

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Co-principal Investigator - Guy C. McLeod, Director of Research
Co-principal Investigator - Thomas R. Gilbert, Assoc. Dir. of Research
Albert J. Barker, Research Associate
Caroline Karp, Research Associate

NAME AND ADDRESS OF APPLICANT INSTITUTION

New England Aquarium
Central Wharf
Boston, MA 02110

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

A three-year study is proposed to assess the environmental impact of the discharge of drilling fluids during petroleum exploration on Georges Bank. The study will examine the following indicators of environmental stress and recovery: the colonization of deposits of drilling fluid solids by benthic invertebrates; inhibition of primary productivity; acute toxicity, decreased reproductive success, depletion of energy stores and accumulation of constituents of drilling fluids in selected marine fauna. Species to be studied include several constituting major fisheries on and around Georges Bank: the North Atlantic lobster, Homarus americanus, the winter flounder, Pseudopleuronectes americanus, the ocean quahog, Arctica islandica, the sea scallop, Placopecten magellanicus, and the surf clam, Spisula solidissima.

Chemical characterization of various drilling fluids will include sequential extraction of Cr, Pb and Fe with clean seawater, EDTA, weak acid and hot nitric and hydrofluoric acids. Long-term leaching experiments will assess the release of these elements and of Ba, Sr and Al in seawater. The molecular weight distributions of hydrophylic organic components will be determined, and the association of the elements of interest with the major molecular weight fractions will be evaluated.

*PROJECT: 006641-DEVELOPMENT OF BEHAVIORAL METHODOLOGIES FOR TOXICOLOGY. BRAIN REINFORCEMENT SYSTEMS
TASK =HC2R -991700 **EPA=R806777 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 09/81 : FY80

EPA OFFICER.: LW REITER EPA/HERL - RTP 629-2760
INVESTIGATOR.: UNKNOWN SALK INST
MILESTONES...: 12/79 -SURGERY PERFORMED.
02/80 -EXPER 1A RATE X INTENSITY BRAIN STIM. REWARD.
04/80 -EXPER 1B RATE X INTENSITY OTHER REWARDS.
07/80 -EXPERIMENT 2 DOPAMINE RECEPTOR BLOCKADE.
09/80 -EXPERIMENT 3 DOPAMINE DEPLETION.
01/81 -EXPERIMENT 4 HAZARDOUS SUBSTANCE EXPOSURES.
04/81 -EXPERIMENT 5 RATE AND CONTEXT OF REWARD.
07/81 -DATA ANALYZED.
09/81 -FINAL REPORT.
PROGRAM ID...: (PE-C2R) HEALTH EFFECTS OF ENERGY RELATED POLLUTANTS
MANDATE......: 20-99 NOT APPLICABLE
ORDIS CODES..: RECN-006641 SSIE-HZ 809917 EPA -R806777 ORD -RH10B30-2080
PE -C2R
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: A NUMBER OF CHEMICALS ARE KNOWN TO ALTER THE BRAIN'S NORMAL RESPONSE TO REINFORCING (REWARDING) EVENTS. THESE BRAIN RESPONSES ARE ESSENTIAL TO THE PROCESS OF LEARNING. THE OBJECTIVE OF THIS PROJECT IS TO DEVELOP, STANDARDIZE AND VALIDATE A SERIES OF TESTS DESIGNED TO DETECT BEHAVIORAL PATHOLOGY IN BRAIN REINFORCEMENT SYSTEMS. STUDY PROCEEDING ON SCHEDULE.

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*PROJECT: 006316-DEVELOPMENT OF BEHAVIORAL METHODOLOGIES FOR TOXICOLOGY. BRAIN
                 REINFORCEMENT SYSTEMS
                   TASK =H834 -991700 **EPA=R806777     ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/79 - 09/81 :   FY79
  EPA  OFFICER.: LW REITER                EPA/HERL - RTP                     629-2760
  INVESTIGATOR.:    UNKNOWN               SALK INST
  MILESTONES...: 12/79 -SURGERY PERFORMED.
                 02/80 -EXPER 1A RATE X INTENSITY BRAIN STIM. REWARD.
                 04/80 -EXPER 1B RATE X INTENSITY OTHER REWARDS.
                 07/80 -EXPERIMENT 2 DOPAMINE RECEPTOR BLOCKADE.
                 09/80 -EXPERIMENT 3 DOPAMINE DEPLETION.
                 01/81 -EXPERIMENT 4 HAZARDOUS SUBSTANCE EXPOSURES.
                 04/81 -EXPERIMENT 5 RATE AND CONTEXT OF REWARD.
                 07/81 -DATA ANALYZED.
                 09/81 -FINAL REPORT.
  PROGRAM ID...: (PE-834 )          HEALTH EFFECTS -ENERGY
  MANDATE......: 20-99     NOT APPLICABLE
  ORDIS CODES..: RECN-006316         SSIE-HZ 799917        EPA -R806777          ORD -RH10B30-2079
                 LABN-H834 -991700   PE  -834
  PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL         ENTERED - 06-28-80    UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....:  A NUMBER OF CHEMICALS ARE KNOWN TO ALTER THE BRAIN'S NORMAL RESPONSE TO REINFORCING (REWARDING)
                  EVENTS. THESE BRAIN RESPONSES ARE ESSENTIAL TO THE PROCESS OF LEARNING. THE OBJECTIVE OF THIS
                  PROJECT IS TO DEVELOP, STANDARDIZE AND VALIDATE A SERIES OF TESTS DESIGNED TO DETECT BEHAVIORAL
                  PATHOLOGY IN BRAIN REINFORCEMENT SYSTEMS. GRANT INITIATED 09/20/79.

*PROJECT: 005120-EVALUATION OF THE CHARACTERISTICS AND TREATABILITY OF URBAN RUNOFF
                 RESIDUALS
                   TASK =CC35 -S2T030 **EPA=R806785     ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/79 - 10/80 :   FY80
  EPA  OFFICER.: DC AMMON                 EPA/MERL - CINC                    FTS 8-340-6677
  INVESTIGATOR.: AE ZANONI                MARQUETTE UNIV                     DEPT. OF CIVIL ENGIN
                 M  GUPTA                 REXNORD INC.
  MILESTONES...: 12/79 -DEVELOPMENT OF SAMPLING PROGRAM & SAMPLE COLLECTION SCHEDULE COMPLETE
                 03/80 -COMPLETE SAMPLE COLLECTION
                 07/80 -COMPLETE SLUDGE CHARACTERIZATION & TREATABILITY EVALUATION
  PROGRAM ID...: (PE-C35 )          WASTEWATER SYSTEMS CONTROL TECHNOLOGY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005120         SSIE-GMA  6217 1      EPA -R806785          ORD -RC10B30-1080
                 PE  -C35
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OVERALL OBJECTIVES OF THE PROJECT ARE TO CHARACTERIZE RESIDUAL SLUDGES GENERATED FROM
                 URBAN RUNOFF TREATMENT AND EVALUATE HANDLING AND DISPOSAL PROCESSES FOR THE SLUDGES PRODUCED. AS
                 PART OF THE CHARACTERIZATION WORK THE SLUDGES WILL BE COMPARED TO RAW PRIMARY SLUDGE AND COMBINED
                 SEWER OVERFLOW (CSO) SLUDGE. TREATABILITY STUDIES WILL ALSO INCLUDE AN EVALUATION OF THE EFFECTS OF
                 COMBINING STORMWATER GENERATED SLUDGE WITH CSO GENERATED SLUDGE AS WELL AS MUNICIPAL SLUDGE.
                 APROACH: URBAN RUNOFF SLUDGE SAMPLES WILL BE COLLECTED FROM ACTUAL TREATMENT FACILITIES AND
                 CHARACTERIZED. TREATMENT METHODS WILL BE ESTABLISHED DURING THE CHARACTERIZATION AND THE
                 AMENABILITY OF THE SLUDGES TO VARIOUS HANDLING PROCESSES WILL BE DETERMINED BY LABORATORY TESTING.
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Z22.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

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Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA 808780 01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Relationships Between Nutrient Fluxes and Benthic Plant Processes in Netarts Bay, Oregon

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

C. David McIntire, Professor
Department of Botany & Plant Pathology

NAME AND ADDRESS OF APPLICANT INSTITUTION

Oregon State University
Corvallis, OR 97331

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The general objective of this research is to determine mechanisms that control the production dynamics of benthic plants and associated epiphytes in Netarts Bay relative to physical processes and changing patterns of nutrient distribution. In particular, the research will be concerned with effects of nutrient gradients on the productivity and biomass of seagrass and on the structural and functional attributes of microalgal assemblages. This knowledge of biological processes will be used to help interpret the patterns of nutrient flux determined by the EPA studies of August 1978 and January 1979. The research approach involves an intensive field investigation of benthic plant processes during the first year of study followed by data synthesis and some experimental work in the second year. Field work will receive the major emphasis and will be coordinated with the EPA's detailed investigation of nutrient gradients in Netarts Bay. In the laboratory, problems of related to nutrient partitioning between seagrass and microalgae will be examined in microcosms.

*PROJECT: 005210-COOPERATIVE AGREEMENT FOR SUPPORT OF INNOVATIVE RESEARCH PROJECT

TASK =G775G-CC-016 **EPA=R806787 ** (GRANT)
STARTING/ COMPLETION DATE : 07/79 - 05/81 : FY79

EPA OFFICER.:	BW GAY	EPA/ESRL - RTP	FTS 8-629-2830
INVESTIGATOR.:	JN PITTS	UNIV OF CALIFORNIA	AIR POLL RES CTR
	PL HANST	UNIV OF CALIFORNIA	AIR POLL RES CTR

MILESTONES...: 12/79 -REPORT ON FINDINGS FROM 1979 SMOG SEASON
10/80 -REPORT ON FINDINGS FROM 1980 SMOG SEASON
PROGRAM ID...: (PE-775) ANTICIPATORY R & D
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: FOLDED PATH CELL OF 1 KM PATH LENGTH YIELDED MEASUREMENTS OF MANY IMPORTANT SPECIES.

ORDIS CODES..:	RECN-005210	SSIE-GMA 6116	EPA -R806787	ORD -RG10B30-1079
	PE -775			
PROJ STATUS..:	PROJECT-ACTIVE	INFO-ORIGINAL	ENTERED - UNKNOWN	UPDATED- OCT-DEC 79
	CATEGORY-RESEARCH	ACCESS-PUBLIC		

ABSTRACT.....: OBJECTIVE: SUPPORT IS GIVEN IN THE FORM OF FACILITIES AND PERSONNEL TO DR. P.L. HANST DURING HIS ASSIGNMENT TO MEASURE TRACE GASES IN THE ATMOSPHERE UNDER EPA'S INNOVATIVE RESEARCH PROGRAM. APPROACH: MEASUREMENTS OF POLLUTANTS WILL BE MADE AT SEVERAL LOCATIONS WITH ATTENTION TO DIURNAL AND SEASONAL VARIATION. IN-SITU LONG PATH HIGH RESOLUTION FOURIER TRANSFORM INFRARED SPECTROSCOPY WILL BE APPLIED, IN CONJUNCTION WITH OTHER ANALYTICAL METHODS. EMPHASIS WILL BE PLACED ON THE DETECTION OF PRIMARY POLLUTANTS, LABILE INTERMEDIATES AND REACTION PRODUCTS. INNOVATIONS IN THE USE OF CRYOGENIC COLLECTION AND MINIATURIZED FOLDED PATH CELLS WILL BE EXPLORED.

*PROJECT: 005103-DETERMINE PHYSICAL AND CHEMICAL CHARACTERISTICS OF SYNTHETIC ASPHALT
PRODUCED FROM LIQUEFACTION OF SEWAGE SLUDGE
TASK =CC36 -S1TB23 **EPA=R806790 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 03/81 : FY80

EPA OFFICER.: HO WALL   EPA/MERL - CINC   FTS-8-684 7659
INVESTIGATOR.: CL LAU   HONOLULU CITY & COUNTY GOVN   HONOLULU   HI 96813
MILESTONES...: 09/79 -GRANT AWARDED
12/79 -PROJECT STARTED
12/80 -DRAFT REPORT
03/81 -FINAL REPORT
PROGRAM ID...: (PE-C36)   URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
MANDATE......: 10-99
CURR. RESULTS: SIMILAR WORK DONE BY BUREAU OF MINES FOR PRODUCTION OF GAS AND OIL FROM SOLID WASTES, CELLULOSE, COW MANURE OR SLUDGE. ASPHALT, OIL AND TAR NOT STUDIED DURING THESE PREVIOUS STUDIES.
ORDIS CODES..: RECN-005103   SSIE-GMA 6224 1   EPA -R806790   ORD -RC10B30-1080
PE -C36
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED   ENTERED - UNKNOWN   UPDATED- 06-28-80
CATEGORY-RESEARCH   ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: CONVERT SEWAGE SLUDGE INTO SYNTHETIC ASPHALT BY THERMOCHEMICAL AQUEOUS LIQUEFACTION. DETERMINE THE PHYSICAL AND CHEMICAL PROPERTIES OF THE SYNTHETIC ASPHALT WITH REGARD TO APPLICATION AND DURABILITY. APPROACH: SAMPLES OF SEWAGE SLUDGE WILL BE LIQUEFIED BY ADDITION OF ALKALI AND REACTION AT TEMPERATURES OF 280 TO 360 DEGREES C. THE LIQUID SAMPLES WILL BE RECOVERED AND DISTILLED, LEAVING A SYNTHETIC ASPHALT. THIS MATERIAL WILL BE EXAMINED AS A REPLACEMENT OR EXTENDER FOR PETROLEUM ASPHALT IN ROAD PAVING APPLICATIONS.

*PROJECT: 005170-AN EPIDEMIOLOGICAL STUDY OF PRESQUE ISLAND STATE PARK BEACHES ON LAKE
ERIE, ERIE, PENNSYLVANIA
TASK =DC27 -2B013E **EPA=R806791 ** (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 01/80 : FY80
EPA OFFICER.: WD WATKINS EPA/HERL - CINC FTS 8-838-4843
INVESTIGATOR.: SJ ZAGORSKI GANNON COLLEGE DEPT. OF BIOLOGY
MILESTONES...: 09/79 -FIELD STUDIES COMPLETED
12/79 -STUDY COMPLETED
01/80 -FINAL REPORT SUBMITTED; DATA FOR FRESH RECREATIONAL WATER QUALITY CRITERIA
PROGRAM ID...: (PE-C27) HEALTH EFFECTS - WATER QUALITY
FINAL OUTPUT.: DATA FOR FRESH RECREATIONAL WATER QUALITY CRITERIA
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-11 DAA FOR WATER PLANNING AND STANDARDS
CURR. RESULTS: BACTERIOLOGICAL SURVEYS PINPOINT SOURCE OF CONTAMINATION IMPACTING TEST BEACH AREA, AND SHOW NO IMPACT ON OTHER SITE.
ORDIS CODES..: RECN-005170 SSIE-GMA 6200 1 EPA -R806791 ORD -RD10B30-5080
LABN-D607C-047 PE -C27
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROPOSAL IS TO CORRELATE THE INCIDENCE OF ILLNESS AMONG BATHERS WITH THE QUALITY OF WATER AS INDICATED BY RESULTS OF BACTERIOLOGICAL ASSAYS OBTAINED FROM FRESH RECREATIONAL WATER SITES ON LAKE ERIE, ERIE, PENNSYLVANIA. THE SITES SELECTED ARE EXPECTED TO DIFFER SUBSTANTIALLY IN WATER QUALITY, ONE KNOWN TO BE IMPACTED BY CONTAMINATION AND THE OTHER RELATIVELY CLEAN. COMPUTER ASSISTED ANALYSIS OF THE DATA WILL EMPLOY A SAS PROGRAM ALREADY DEVELOPED. APPROACH: CONDUCT BACTERIOLOGICAL AND EPIDEMIOLOGICAL SURVEYS AT THE BEACHES AND BY TELEPHONE FOLLOW-UPS. MICROBIAL ASSAYS INCLUDE THOSE FOR ESCHERICHIA COLI, CLOSTRIDIUM PERFRINGENS, AND ENTEROCOCCI. RESULTS OF THESE STUDIES SHOULD AMPLIFY THE DEVELOPMENT OF FRESH RECREATIONAL WATER QUALITY CRITERIA.

*PROJECT: 006054-SOIL TREATMENT OF RESIDENTIAL SOLID FUEL COMBUSTION FLUE GASES

TASK =F830M-792220 **EPA=R806795 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 07/81 : FY79
EPA OFFICER.: AR ECKELS EPA/IERL - RTP 919-541-2745
INVESTIGATOR.: H BOHN UNIV OF ARIZONA DEPT OF ELECTRICAL ENGIN
PROGRAM ID...: (PE-830) FLUE GAS PARTICULATE CONTROL -ENERGY
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-006054 SSIE-GMA 6484 EPA -R806795 ORD -RF10B31-1079
PE -830
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: ASSESS SOIL TREATMENT AS A MEANS OF CONTROLLING AIR POLLUTION FROM RESIDENTIAL WOOD AND COAL COMBUSTION. THE CONTROL TECHNOLOGY CONCEPT WHICH HAS ALREADY BEEN DEVELOPED WILL BE EVALUATED IN A DEMONSTRATION UNIT THAT IS TO BE CONSTRUCTED. APPROACH: DEVELOP DESIGN PARAMETERS AND OPERATIONAL LIMITS FOR SOIL FILTRATION SYSTEMS FOR REMOVING AIR POLLUTION FROM RESIDENTIAL SOLID FUEL COMBUSTION PROCESSES.

225.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

RF-79-535

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R806793 01

TITLE OF PROJECT

"Effects of Offshore Oil and Gas Drilling and Production on Reef Building Corals"

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Thomas J. Bright, Associate Professor, Department of Oceanography

NAME AND ADDRESS OF APPLICANT INSTITUTION

Texas A & M Research Foundation
Faculty Exchange Box H
College Station, Texas 77843

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Laboratory and field studies of the effects of drilling fluids and other effluents from offshore oil and gas drilling operations on scleractinian corals will be performed using behavioral and physiological parameters. In laboratory experiments, corals will be exposed to the xenobiotics in flowing seawater aquaria. In field experiments, corals will be exposed using both in situ chambers and by transplanting corals to buoyed exposure cages deployed in an array around an active drilling platform. In all cases the behavior of the organisms will be recorded using time lapse photographic techniques. Tissue and coralla will be preserved for analysis of heavy metal uptake, and will be provided to collaborating investigators for analysis of various chemical and physiological parameters. Growth will be determined by techniques which will be developed in preliminary experiments, including live weight increment, Ca^{45} deposition, and Alarizin-S staining. Other parameters include the ability of corals to repair mechanical damage, predator-prey relationships, and disease resistance. Close coordination will be maintained with investigators conducting a field studies of natural reef processes at the target area (Texas Flower Garden Banks), and with other collaborating scientists who will be studying the distribution and fate of effluents from an active drilling platform near the East Flower Garden Bank.

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*PROJECT: 005233-CHARACTERIZATION AND TREATMENT OF AQUEOUS WASTES FROM PETROLEUM REFINERY
                FLUID CATALYTIC CRACKING UNITS
                 TASK =L610F-000027 **EPA=R806798-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 09/79 - 08/81 :   FY79
 EPA  OFFICER.: LH MYERS                 EPA/ERL - ADA                  FTS 8-743-2202
 INVESTIGATOR.: SL BURKS                 OKLAHOMA STATE UNIV            RESERVOIR RES CTR
 MILESTONES...: 12/79 -CHARACTERIZE CAT CRACKER WASTEWATERS - 5 PLANTS
                01/80 -INSTALL PILOT PLANTS
                01/81 -COMPLETE PILOT PLANT STUDIES
                08/81 -COMPLETED REPORT
 PROGRAM ID...: (PE-610 )           INDUSTRIAL PROC. - WATER QUALITY
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
 ORDIS CODES..: RECN-005233          SSIE-GMA  6154       EPA -R806798-01      ORD -RL10B30-1079
                PE  -610
 PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL        ENTERED - UNKNOWN    UPDATED-  OCT-DEC 79
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVES: 1. CHARACTERIZE THE WASTEWATERS FROM A MINIMUM OF 5 FLUID CATALYTIC CRACKING UNITS BY
                 GC/MS FOR THE PRIORITY POLLUTANTS. 2. COMPARE THE TREATMENT EFFECTIVENESS OF A FULL-SCALE
                 BIOLOGICAL LAGOON PRETREATMENT WITH PILOT-SCALE FILTER/ACTIVATED CARBON, AERATED LAGOON/FILTER
                 ACTIVATED CARBON AND MACRORETICULAR RESIN PILOT PLANT. 3. BENCH-SCALE TREATABILITY ON OZONATION TO
                 BE COMPARED WITH MACRORETICULAR RESINS, ACTIVATED CARBON, AND AERATED LAGOON EFFECTIVENESS.
                 APPROACH: PILOT STUDIES ON SITES AT A REFINERY TO DETERMINE TREATMENT EFFECTIVENESS FOR
                 FILTER/CARBON AND RESIN SYSTEMS. OZONATION WILL BE CONDUCTED AT BENCH SCALE AND COMPARED TO PILOT
                 DATA. CHARACTERIZATION OF CATALYTIC CRACKER EFFLUENTS WILL BE WITH GC/MS AND APPROVED EPA
                 METHODOLOGY.

*PROJECT: 005333-COMBINED MUNICIPAL-INDUSTRIAL WASTE TREATMENT CONFERENCE

                 TASK =L610F-000063 **EPA=R806799-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 10/79 - 10/80 :   FY79
 EPA  OFFICER.: TE SHORT                 EPA/ERL - ADA                  FTS 8-743-2234
 INVESTIGATOR.: A  NETZER                UNIV OF TEXAS                  SCHOOL OF NATURAL SCIENCE
 MILESTONES...: 10/80 -PUBLISHED PROCEEDINGS OF CONFERENCE
 PROGRAM ID...: (PE-610 )           INDUSTRIAL PROC. - WATER QUALITY
 FINAL OUTPUT.: PUBLISHED PROCEEDINGS OF CONFERENCE
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
 CURR. RESULTS: CONFERENCE HAS BEEN HELD
 ORDIS CODES..: RECN-005333          SSIE-GMA  6343       EPA -R806799-01      ORD -RL10B30-1079
                PE  -610
 PROJ STATUS..: PROJECT-ACTIVE       INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  JAN-MAR 80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO CONDUCT A CONFERENCE WHICH WILL BRING TOGETHER EXPERTS THROUGHOUT THE UNITED STATES
                 AND EUROPE ON INDUSTRIAL-MUNICIPAL WASTEWATER TREATMENT. APPROACH: A CONFERENCE WAS HELD IN DALLAS,
                 TEXAS, EARLY 1980.
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·PROJECT: 005185-FORMATION OF ATMOSPHERIC AEROSOLS II

TASK =GC05 -000234 ··EPA=R806801-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 09/82 : FY80

EPA OFFICER.: WE WILSON EPA/ESRL - RTP FTS 8-629-2582
INVESTIGATOR.: KT WHITBY UNIV OF MINNESOTA DEPT OF MECH ENG
MILESTONES....: 06/79 -BEGIN FIELD STUDY - VISTTA
06/80 -BEGIN FIELD STUDY - PEPE
09/82 -REPORT ON FORMATION OF ATMOSPHERIC AEROSOLS
PROGRAM ID...: (PE-C05) TRANS. AND FATE - AIR
FINAL OUTPUT.: REPORT ON FORMATION OF ATMOSPHERIC AEROSOLS
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-005185 SSIE-GMA 6203 1 EPA -R806801-01 ORD -RG10831-1080
LABN-G603A-AA-160 PE -C05
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: (1) TO PARTICIPATE IN THE WESTERN VISTTA (VISIBILITY IMPAIRMENT DUE TO SULFUR TRANSFORMANTION AND TRANSPORT IN THE ATMOSPHERE) STUDY DURING THE SUMMER OF 1979, AND IN THE EASTERN PEPE'S (PERSISTENT ELEVATED POLLUTION EPISODES) STUDY DURING THE SUMMER OF 1980. (2) TO PERFORM DATA ANALYSIS AND MODELING OF AEROSOL GROWTH MODELS AND THE INTEGRATION OF THESE INTO PLUME MODELS. (3) DEVELOPMENTAL WORK WILL ALSO BE INITIATED ON A CLOUD DROPLET-AEROSOL SAMPLER, DESIGNED TO FACILITATE TAKING SIMULTANEOUS DROPLET AND AEROSOL SAMPLES IN CLOUDS. APPROACH: TWO GROUND-BASED MOBILE LABORATORIES WILL BE USED TO DO PHYSICAL/CHEMICAL CHARACTERIZATION OF THE AEROSOL, AND TO DETERMINE AEROSOL NUCLEATION AND GROWTH RATES. THE VISTTA STUDY WILL RELATE THESE QUANTITIES TO VISIBILITY IN THE VICINITY OF THE GRAND CANYON AND IN THE EASTERN U.S. A DICHOTOMOUS VIRTUAL IMPACTOR WILL BE USED TO SEPARATE THE CLOUD DROPLETS AND THE COARSE PARTICLE MODE FROM THE FINE PARTICLES. THE FINE FRACTION WILL BE PASSED THROUGH AN IMPACTOR FOR PURIFICATION AND SIZE DISTRIBUTION DETERMINED USING AN ELECTRICAL AEROSOL ANALYZER.

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*PROJECT: 005593-A MODEL FOR THE MANAGEMENT AND CONCEPTUAL DESIGN OF POTABLE WATER
                 TREATMENT SYSTEMS
                   TASK =CC61 -S1T095 *-EPA=R806802-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 11/79 - 03/82 :   FY80
  EPA  OFFICER.: RM CLARK               EPA/MERL - CINC                    FTS 8-684-7209
  INVESTIGATOR.: SP SHELTON             UNIV OF SOUTH CAROLINA             DEPT. OF CIVIL ENGIN
  MILESTONES...: 11/80 -INTERIM REPORT
                 11/81 -DRAFT FINAL REPORT
                 03/82 -FINAL REPORT
  PROGRAM ID...: (PE-C61 )          DRINK WATER TREATMENT & GROUND WATER PROT
  FINAL OUTPUT.: FINAL REPORT
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
                 10-13     SOLID WASTE DISPOSAL ACT
  ORDIS CODES..: RECN-005593          SSIE-GMA  6580        EPA -R806802-01      ORD -RC10B30-5080
                 PE  -C61
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 06-28-80   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DEVELOP TECHNIQUES TO ALLOW WATER UTILITY PLANNERS AND MANAGERS AND REGULATORS TO
                  ASSESS THE COST OF INSTALLING COST EFFECTIVE TREATMENT CHAINS TO MEET FINISHED WATER QUALITY
                  STANDARDS. APPROACH: FOUR TASKS ARE PROPOSED. TASK 1 SURVEYS CURRENT TECHNIQUES AVAILABLE. TASK 2
                  IDENTIFIES THE SET OF POSSIBLE ALTERNATIVE TREATMENT TRAINS TO MEET WATER STANDARDS. TASK 3
                  COMPILES THE SET OF COST CHARACTERISTICS FOR EACH TREATMENT TECHNIQUE. TASK 4 DEVELOPS A COMPUTER
                  PROGRAM TO MANIPULATE AND SELECT MOST EFFICIENT TREATMENT TRAINS.

*PROJECT: 005606-PLANNING MODELS FOR URBAN WATER EXPANSION - INCORPORATING DEMAND
                 UNCERTAINTY AND REGIONALIZATION CONCERNS
                   TASK =C824A-SOS1CO *-EPA=R806802-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 08/79 - 11/82 :   FY80
  EPA  OFFICER.: RM CLARK               EPA/MERL - CINC                    FTS 8-684-7209
  INVESTIGATOR.: DH MARKS               MIT                                ELEC ENG DEPT
  MILESTONES...: 08/80 -INTERIM REPORT
                 08/81 -INTERIM REPORT
                 08/82 -DRAFT FINAL REPORT
  PROGRAM ID...: (PE-824 )          DRINK WATER TREAT & GROUND WATER PROT  -DRINKING WATER
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
                 20-30     AA FOR TOXIC SUBSTANCES
  ORDIS CODES..: RECN-005606          SSIE-GMA  6728        EPA -R806802-01      ORD -RC10B30-5080
                 PE  -824
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 06-28-80   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DEVELOP AND DEMONSTRATE ANALYTIC TECHNIQUES FOR PLANNING THE LEVEL OF CAPACITY
                  EXPANSION AND DEGREE OF REGIONALIZATION FOR URBAN WATER SUPPLY SYSTEMS. APPROACH: THE METHODS
                  DEVELOPED WILL CONSIDER THE NEEDS GENERATED BY INCREASED WATER DEMAND AS WELL AS THE MORE STRINGENT
                  WATER TREATMENT NEEDS GENERATED BY THE SAFE DRINKING WATER ACT OF 1974. A CENTRAL OBJECTIVE WILL BE
                  TO IDENTIFY TOOLS TO INSURE THE SYSTEM WILL ALWAYS BE IN A RELATIVELY GOOD FUTURE STATE REGARDLESS
                  OF THE INTERVENING EVENTS.
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*PROJECT: 005454-MUSSEL WATCH--EXTENSION TO HISTORICAL RECORDS AND THE NOVEL POLLUTANTS

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                    TASK =P775 -000042 **EPA=R806805      ** (GRANT)
                    STARTING/ COMPLETION DATE : 00/79 - 10/80 :   FY79
EPA  OFFICER.: W  GALLOWAY              EPA/ERL - NARR                  401-789-1071
INVESTIGATOR.: ED GOLDBERG              UNIV OF CALIFORNIA              SCRIPPS INST OF OCEANOG
MILESTONES...: 10/80 -FINAL REPORT
PROGRAM ID...: (PE-775 )          ANTICIPATORY  R & D
MANDATE......: 30-99     MARINE ECOLOGY
ORDIS CODES..: RECN-005454          SSIE-GMA  6272        EPA -R806805          ORD -RP10B30-3079
               PE  -775
PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - UNKNOWN     UPDATED-  JAN-MAR 80
               CATEGORY-RESEARCH    ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO ASSESS THE USE OF THE SHELLS OF BIVALVES (MUSSELS, OYSTERS, AND CLAMS) AS RECORDERS OF
               HEAVY METAL LEVELS OF THE ENVIRONMENTS IN WHICH THE ORGANISMS LIVED AND THE USE OF PU-241
               CONCENTRATIONS IN BIVALVES AS AN INDICATOR OF TRANSURANIC LEAKAGE FROM FACILITIES OF THE NUCLEAR
               FUEL CYCLE. APPROACH: BOTH GOALS WILL ATTEMPT TO EXTEND THE USE OF BIVALVES AS SENTINEL ORGANISMS
               IN ASCERTAINING THE LEVELS OF POLLUTION IN COASTAL OCEAN WATERS. THE SHELL ANALYSES FOR AG, CD, CU,
               NI, PB, AND AN WILL BE COMPARED WITH THE PREVIOUSLY MADE ANALYSES FOR THESE METALS ON THE SOFT
               TISSUE FOR SAMPLES COLLECTED DURING THE 1976-1978 PERIODS OF THE MUSSEL WATCH PROGRAM.
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*PROJECT: 005113-DETERMINATION OF THE INSTABILITY OF TREATED MUNICIPAL SLUDGES

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                    TASK =CC36 -S1TA58 **EPA=R806809-01  ** (GRANT)
                    STARTING/ COMPLETION DATE : 12/79 - 09/81 :   FY80
EPA  OFFICER.: RV VILLIERS              EPA/MERL - CINC                 FTS-8-684-7664
INVESTIGATOR.: JS JERIS                 MANHATTAN COLLEGE               ENV ENG & SCI DEPT
PROGRAM ID...: (PE-C36 )          URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
               10-05     RESOURCE CONSERVATION AND RECOVERY ACT
CURR. RESULTS: WORK HAS BEEN DELAYED BECAUSE OF SABBATICAL LEAVE. GRANT
               RESEARCH IS NOW PROCEEDING ON SCHDULE.
ORDIS CODES..: RECN-005113          SSIE-GMA  6213 1      EPA -R806809-01       ORD -RC10B30-1080
               PE  -C36
PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
               CATEGORY-RESEARCH    ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROJECT IS TO DETERMINE THE INSTABILITY OR POTENTIAL DEGRADATION OF
               VARIOUS TREATED SLUDGES ORIGINATING FROM MUNICIPAL SOURCES, AND THE PARAMETERS WHICH DEFINE THE
               INSTABILITY OF A SLUDGE. APPROACH: A SERIES OF AEROBIC AND ANAEROBIC DIGESTERS WILL BE SET UP TO
               EVALUATE THE DEGRADATION POTENTIAL OF THESE SLUDGES. VARIOUS CHEMICAL, BIOLOGICAL, AND PHYSICAL
               ANALYSES WILL BE CONDUCTED IN ORDER TO MONITOR THE EXTENT AND RATE OF THE DEGRADATION PROCESS.
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*PROJECT: 005149-EFFECT OF AGRICULTURAL LAND USE PRACTICES ON STREAM WATER QUALITY
           (SOCIOLOGICAL FACTORS IN THE ADOPTION OF BEST MANAGEMENT PRA
             TASK =KC34 -000483 --EPA=R806814-01  -- (GRANT)
             STARTING/ COMPLETION DATE : 09/79 - 07/81 :   FY80
 EPA  OFFICER.: TE WADDELL            EPA/ERL - ATHENS        FTS-8-250-3560
 INVESTIGATOR.: PF KORSCHING          IOWA STATE UNIV         AMES              IA 50011
                PJ NOWAK              IOWA STATE UNIV         AMES              IA 50011
 MILESTONES...: 11/79 -DETAILED WORK PLAN ON METHODOLOGY
                06/80 -INTERIM REPORT ON RESULTS TO DATE
                07/81 -FINAL REPORT
 PROGRAM ID...: (PE-C34 )          RENEWABLE RESOURCES -WATER QUALITY
 MANDATE......: 20-11     DAA FOR WATER PLANNING AND STANDARDS
                20-R07    EPA REGION VII
 CURR. RESULTS: A QUESTIONAIRE TO COLLECT BASELINE DATA HAS BEEN DEV. AND WAS
                ADMINISTERED
 ORDIS CODES..: RECN-005149          SSIE-GMA  6242 1     EPA -R806814-01     ORD -RK10B30-2080
                PE  -C34
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED         ENTERED - UNKNOWN   UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: PROJECT IS A COMPONENT OF THE IOWA FIELD EVALUATION PROJECT (FEP) TO CONDUCT RESEARCH ON THE SOCIAL AND INSTITUTIONAL FACTORS ASSOCIATED WITH THE IMPLEMENTABILITY OF AGRICULTURAL NONPOINT SOURCE BEST MANAGEMENT PRACTICES (BMPS). THE PURPOSE OF THIS COMPONENT IS TO DETERMINE THOSE SOCIAL AND INSTITUTIONAL PROCESSES WHICH INFLUENCE THE AWARENESS, ADOPTION, AND MAINTENANCE OF AGRICULTURAL MANAGEMENT PRACTICES. APPROACH: TO ACCOMPLISH THIS OBJECTIVE AN ADOPTION AND DIFFUSION-OF-INNOVATIONS MODEL WILL BE APPLIED TO TARGET POPULATIONS IN THE FOUR MILE CREEK WATERSHED AND IN A COMPARABLE WATERSHED ELSEWHERE IN THE IOWA-CEDAR RIVER BASIN. THIS MODEL WILL ESTABLISH THE RELATIONSHIPS BETWEEN SOCIAL, INSTITUTIONAL, DEMOGRAPHIC, ECONOMIC, AND FARM OPERATIONS CHARACTERISTICS AND DECISIONS TO ADOPT OR REJECT SPECIFIC BMPS.

230.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA C R806815 01

TITLE OF PROJECT

Cooperative Agreement for Epidemiology Research Center

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Edward P. Radford, M.D., Professor, Department of Epidemiology
Philip E. Enterline, Ph.D., Professor, Department of Biostatistics
Lewis H. Kuller, M.D., Professor, Department of Epidemiology
Yves Alarie, Ph.D., Professor, Department of Industrial Environmental Health Sciences
Neil Wald, M.D., Professor, Department of Radiation Health

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Pittsburgh
1028 Cathedral of Learning
Pittsburgh, PA 15260

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

By a cooperative research center agreement of the EPA and University of Pittsburgh, an Environmental Epidemiology Center would be established at the University's Graduate School of Public Health. Its primary goals would be to: (1) bring together a wide range of School, University, community, regional, national, and even international resources to plan and perform research in the field of environmental epidemiology and contributory and related fields; ( ) provide specialized assistance to the EPA; (3) provide means for scientists in th se fields from outside the University to contribute to Center research, service, and educational activities; and (4) provide advanced graduate and post-graduate training in these fields. An Executive Committee, comprised of Dr. Edward P. Radford, Director and Professor of Epidemiology, Dr. Philip E. Enterline, Associate Director and Program Coordinator for Biometry, Program Coordinators for Environmental Epidemiology of Chronic Disease, Environmental Toxicology, Air and Water Pollutant Effects, and Environmental Radiation Effects (Drs. Lewis H. Kuller, Yves C. E. Alarie, Julian B. Andelman, and Neil Wald respectively), Dean and Professor of Epidemiology Herschel E. Griffin, and Directors of EPA Health Effects Research Laboratories, would govern the Center with the assistance of a National Advisory Board having EPA, Center, and "external" representation. A variety of mechanisms having optimal flexibility to respond to ever-changing needs and circumstances would be used to address research needs of the EPA and field of environmental epidemiology and assistance needs of the EPA. In addition to research and service activities, Center Fellows, Visiting Scholars, EPA Visitors/Exchange, and Symposium Series Programs would be established. The Center would also provide graduate- and post-graduate-level training, and perhaps new courses and educational programs in environmental epidemiology would be established through the Center and School.

*PROJECT: 004952-ANALYSIS OF PHOSPHORUS REMOVAL IN GREAT LAKES BASIN MUNICIPAL TREATMENT PLANTS
TASK =CC35 -S3TC17 **EPA=R806817 ** (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 06/80 : FY80

EPA OFFICER.: EF BARTH EPA/MERL - CINC FTS-8-684-7641
INVESTIGATOR.: JV DEPINTO CLARKSON COLLEGE OF TECH SCH OF ENG/CIV ENG
JK EDZWALD CLARKSON COLLEGE OF TECH SCH OF ENG/CIV ENG

MILESTONES...: 09/79 -FIELD VISITS COMPLETED - DONE
10/79 -DATA EVALUATION - DONE
12/79 -REPORT FORWARDED TO MERL-WRD - RECEIVED
03/80 -FINAL REPORT CAMERA-READY COPY
06/80 -ENVIRONMENTAL PROTECTION TECHNOLOGY PUBLICATION PEER JOURNAL ARTICLE

PROGRAM ID...: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY

FINAL OUTPUT.: ENV. PROTECTION TECHNOLOGY PUBLICATION.
PEER JOURNAL ARTICLE.

MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-99 INTERNATIONAL JOINT COMM. AGREEMENT

CURR. RESULTS: FIELD VISITS COMPLETED; DATA EVALUATION DONE; REPORT FORWARDED TO MERL/WRD.

ORDIS CODES..: RECN-004952 SSIE-GMA 5890 1 EPA -R806817 ORD -RC10B30-1080
PE -C35

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: AN ANALYSIS OF THE COSTS AND BENEFITS PERTAINING TO THE ESTABLISHMENT OF EFFLUENT RESIDUAL PHOSPHORUS AT LEVELS OF 0.5 TO 1.0 MG/L WILL BE CALCULATED. TOTAL PHOSPHORUS AND BIOAVAILABLE PHOSPHORUS IS TO BE DETERMINED. APPROACH: FIELD SITE VISITS AND SAMPLING OF FIVE TREATMENT FACILITIES, COMBINED WITH DESK TOP EVALUATION AND UNIT PROCESS COST ESTIMATES.

*PROJECT: 005473-ADVANCED ENVIRONMENT CONTROL TECHNOLOGY RESEARCH CENTER

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               TASK =B610B-000947 **EPA=R806819      ** (GRANT)
               STARTING/ COMPLETION DATE : 12/79 - 11/80 :   FY79
EPA  OFFICER.: B  CAWLEY              EPA/IERL - CINC               513-684-4438
INVESTIGATOR.: RE LARCHT              UNIV OF ILLINOIS              SCH OF ENG/CIV ENG DEPT
MILESTONES...: 01/80 -BEGIN STATE OF THE ART EVALUATIONS, SPECIFIC TECHNOLOGY EVALUATION AND SPECIFIC
               09/80 -COMPILE FIRST DETAILED EVALUATION AND TWO PLANNING STUDIES
               11/80 -BEGIN ADDITIONAL SPECIFIC STUDIES
PROGRAM ID...: (PE-610 )           INDUSTRIAL PROC. - WATER QUALITY
MANDATE......: 30-99    INTER-DISCIPLINARY FUNDEMENTAL RESEARCH
ORDIS CODES..: RECN-005473         SSIE-GMA  6639        EPA -R806819        ORD -RB10B31-3079
               PE  -610
PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL         ENTERED - 06-28-80  UPDATED-  06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
COMMENT......: RESEARCH IS ON TECHNOLOGY RATHER THAN SPECIFIC
               POLLUTANTS AR INDUSTRY
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ABSTRACT......: OBJECTIVE: TO CARRY OUT FUNDAMENTAL RESEARCH ON SEPARATION, DETOXIFICATION AND DESTRUCTIVE TECHNIQUES WHICH HAVE POTENTIAL APPLICATION TO ENVIRONMENTAL PROTECTION. APPROACH: CARRY OUT EVALUATIONS FOR KNOWN TECHNOLOGIES TO DETERMINE THOSE WITH ENOUGH POTENTIAL TO WARRANT EXAMINATION OF THE STATE OF THE ARTS IN DETAIL. THIS IS COUPLED WITH RESEARCH ON THE MECHANISM OF TECHNOLOGIES TO DEVELOP A BASIC UNDERSTANDING OF THEIR OBJECTIVES, APPLICABILITY, AND POTENTIAL.

*PROJECT: 005353-EFFECTS OF ENVIRONMENTAL FACTORS AND THEIR INTERACTIONS ON PHYTOPLANKTON GROWTH UNDER STEADY-STATE AND TRANSIENT CONDITIONS

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               TASK =NC30 -000060 **EPA=R806820      ** (GRANT)
               STARTING/ COMPLETION DATE : 08/79 - 08/83 :   FY80
EPA  OFFICER.: VJ BIERMAN             EPA/ERL - DULUTH              313-675-5000
INVESTIGATOR.: G  RHEE                HLTH RES INC                  ALBANY            NY 12237
               G  RHEE                STATE DEPT. OF HEALTH         ALBANY            NY 12237
MILESTONES...: 08/80 -STATUS REPORT
               08/81 -STATUS REPORT
               08/83 -ECOSERIES REPORT
PROGRAM ID...: (PE-C30 )           GREAT LAKES PROGRAM
FINAL OUTPUT.: ECOSERIES REPORT
MANDATE......: 10-01    FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005353         SSIE-GMA  6336 1      EPA -R806820        ORD -RN10B30-1080
               PE  -C30
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN   UPDATED-  06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
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ABSTRACT......: OBJECTIVE: TO DETERMINE CONTROLLING MECHANISMS AND RATE COEFFICIENTS FOR PHYTOPLANKTON POPULATIONS UNDER CONDITIONS OF SIMULTANEOUS NON-OPTIMUM LEVELS OF TEMPERATURE, LIGHT, AND NUTRIENTS. APPROACH: LABORATORY EXPERIMENTS WITH CONTINUOUS CULTURE TECHNIQUES, CHEMOSTATS AND TURBIDOSTATS WILL BE USED.

•PROJECT: 005100-A REVIEW AND EVALUATION OF THE INFLUENCE OF CHEMICALS ON THE PERMEABILITY OF SOIL CLAYS
TASK =CC73 -S1T13E ••EPA=R806825 •• (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 11/80 : FY80

EPA OFFICER.: RE LANDRETH EPA/MERL - CINC FTS-8-684-7871
INVESTIGATOR : KW BROWN TEXAS A & M UNIV DEPT OF SOIL & CROP SCI
LE DEUEL TEXAS A & M UNIV DEPT OF SOIL & CROP SCI
MILESTONES...: 12/79 -INTERIM REPORT: A LITERATURE SURVEY
PROGRAM ID...: (PE-C73) SOLID & HAZARDOUS WASTE
MANDATE......: 10-05 RESOURCE CONSERVATION AND RECOVERY ACT
ORDIS CODES..: RECN-005100 SSIE-GMA 6234 1 EPA -R806825 ORD -RC10B30-1079
PE -C73
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: 1) LITERATURE ON ORGANIC AS WELL AS INORGANIC SOLUTE EFFECTS ON PERMEABILITY WILL BE REVIEWED AND SUMMARIZED FROM THE VIEWPOINT OF HAZARDOUS WASTE DISPOSAL. 2) LABORATORY TESTING WITH AN INDIVIDUAL WASTE AND COMBINATION WASTES TO DETERMINE IF PERMEABILITY EFFECTS ARE LIKELY. 3) DEVELOP A SHORT-TERM METHOD FOR CONTACTING A WASTE AND A SOIL TO DETERMINE IF PERMEABILITY INCREASES ARE LIKELY. APPROACH: 1) MAJOR GROUPS WHO ARE WORKING ON OR HAVE WORKED ON THE TOPIC WILL BE CONTACTED TO COLLECT UNPUBLISHED DATA ON THE INFLUENCE OF WASTES ON THE PERMEABILITY OF CLAY LINERS. 2) A RANGE OF CHEMICALS WITH DIFFERENT MOBILITIES AND ANTICIPATED INFLUENCES ON THE CLAY LINERS WILL BE EVALUATED. EMPHASIS WILL BE PLACED ON EVALUATING THE RELATIVE INFLUENCE ON THE CHEMICALS CONSIDERED ON THE RANGE OF CLAY MATERIALS SO THAT PREDICTIONS CAN BE MADE AS TO THE ANTICIPATED INFLUENCE OF SIMILAR CHEMICALS ON THE PERMEABILITY OF CLAY LINERS.

•PROJECT: 005118-DEVELOPMENT OF METHODS TO DEFINE WATER QUALITY EFFECTS OF URBAN RUNOFF

TASK =CC35 -S1T075 ••EPA=R806828 •• (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 09/81 : FY80

EPA OFFICER.: DC AMMON EPA/MERL - CINC FTS 8-340-6677
INVESTIGATOR.: JL MANCINI MANHATTAN COLLEGE ENV ENG & SCI DEPT
DM DITORO MANHATTAN COLLEGE ENV ENG & SCI DEPT
MILESTONES...: 12/79 -CONTINUATION FUNDING PACKAGE PROCESSED
09/80 -INTERIM REPORT COMPLETE
12/80 -CONTINUATION FUNDING PACKAGE PROCESSED
05/81 -SCOPE OF WORK COMPLETED
09/81 -FINAL REPORT COMPLETED
12/81 -FINAL REPORT PUBLISHED
09/81 -METHODOLOGY MANUAL
PROGRAM ID...: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
FINAL OUTPUT.: METHODOLOGY MANUAL
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005118 SSIE-GMA 6233 1 EPA -R806828 ORD -RC10B30-1080
LABN-C822A-S1T75 PE -C35
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE OBJECTIVE IS TO DEVELOP INFORMATION AND A METHODOLOGY FOR DEFINING CRITERIA FOR WET-WEATHER WATER QUALITY STANDARDS. APPROACH: THE APPROACH INVOLVES DEVELOPMENT OF LOAD MATRICES FOR GOVERNING POLLUTANTS AS A FUNCTION OF SIZE OF URBAN AREA AND SIZE AND FREQUENCY OF WET-WEATHER EVENTS. THESE LOAD MATRICES WILL ACT AS INPUTS TO SHORT-TERM EFFECTS MATRICES THAT CONSIDER RECEIVING WATER SIZE AND TYPE AND THE ORGANISM/CONTAMINANT TRANSFORMATIONS.

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*PROJECT: 005105-EVALUATION AND DEVELOPMENT OF TEMPERATURE CONTROL STRATEGIES TO MAXIMIZE
                 ORGANIC MATTER DEGRADATION IN STATIC PILE SEWAGE SLUDGE COM
                  TASK =CC36 -S1TB28 **EPA=R806829-01 ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 12/80 :   FY80
 EPA  OFFICER.: AE ERALP                EPA/MERL - CINC                  FTS-8-684-7663
 INVESTIGATOR.: MS FINSTEIN             RUTGERS UNIV                     DEPT. OF PLANT PATHOLOGY
                J  CIRELLO              RUTGERS UNIV                     DEPT. OF PLANT PATHOLOGY
 MILESTONES...: 09/80 -REPORT SUBMITTED
 PROGRAM ID...: (PE-C36 )          URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                30-99     ENVIRONMENTAL ENGINEERING
 CURR. RESULTS: NO CHANGE THE PROJECT HAS JUST STARTED
 ORDIS CODES..: RECN-005105         SSIE-GMA  6229 1      EPA -R806829-01       ORD -RC10B30-5080
                PE  -C36
 PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH     ACCESS-PUBLIC
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ABSTRACT.....: OBJECTIVE: THE MAIN OBJECTIVE OF THIS PROPOSAL IS TO DEMONSTRATE THAT THE COMPOSTING PROCESS CAN BE HASTENED BY USING TEMPERATURE CONTROL AS A PRIMARY PROCESS CONTROL PARAMETER. BENEFITS EXPECTED FROM THE SUCCESSFUL COMPLETION OF THIS DEMONSTRATION ARE: A) MORE RAPID STABILIZATION - THEREBY DECREASING SPACE AND FACILITY REQUIREMENTS; B) INSURING A WELL-STABILIZED END-PRODUCT; AND C) MINIMIZING THE AMOUNT OF PROCESS RESIDUE NEEDING FINAL DISPOSITION. APPROACH: THE ABOVE OBJECTIVES WILL BE ACCOMPLISHED BY EVALUATING VARIOUS TEMPERATURE CONTROL STRATEGIES WHILE BEING MINDFUL OF THE INTERRELATEDNESS OF TEMPERATURE, MOISTURE, AND AERATION. THE FIELD EXPERIMENTS WILL BE PERFORMED AT THE CAMDEN, NEW JERSEY TREATMENT PLANT SITE USING COMPOST PILES SPECIFICALLY OPERATED FOR THIS RESEARCH.

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*PROJECT: 005334-AGRICULTURAL NONPOINT SOURCE CONTROL OF PHOSPHORUS AND SEDIMENT - A
                 WATERSHED EVALUATION
                   TASK =L770D-000072 **EPA=R806839      ** (GRANT)
                   STARTING/ COMPLETION DATE : 10/79 - 12/81 :   FY79
 EPA  OFFICER.: LR SHUYLER               EPA/ERL - ADA                      FTS 8-743-2302
 INVESTIGATOR.: M  BROWN                 STATE DEPT OF ENV CONSRV           ALBANY                    NY 12205
 MILESTONES...: 05/80 -START FIELD MEASUREMENTS
                11/80 -ANNUAL REPORT
                12/81 -COMPLETE STUDY
 PROGRAM ID...: (PE-770 )          RENEWABLE RESOURCES -WATER QUALITY
 FINAL OUTPUT.: COMPLETE STUDY
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                20-12     DAA FOR WATER PROGRAM OPERATIONS
                20-R99    EPA REGION- GENERAL
 CURR. RESULTS: THIS PROJECT IS WELL UNDER WAY WITH SAMPLES BEING TAKEN N
                ALL SITES HAVE BEEN SELECTED AND EQUIPMENT IS INSTALLED
                ALL CONTRACTS HAVE BEEN LET AND WORK PLANS APPROVED
 ORDIS CODES..: RECN-005334          SSIE-GMA  6346        EPA -R806839        ORD -RL10E30-5079
                PE  -770
 PROJ STATUS..: PROJECT-ACTIVE        INFO-UPDATED          ENTERED - UNKNOWN      UPDATED-  JAN-MAR 80
                CATEGORY-RESEARCH     ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: THE PROJECT WILL MEASURE THE EFFECTIVENESS OF VARIOUS BEST MANAGEMENT PRACTICES FOR DAIRY
                 FARMS ON THE WATER QUALITY COMING FROM THE BASIN. ALSO, THE CHANGES IN STREAM WATER QUALITY AND
                 THEIR RESULTANT IMPACT ON CANNONSVILLE RESERVOIR WILL BE EVALUATED. APPROACH: FULL SCALE MANAGEMENT
                 PRACTICES WILL BE COMPARED WITH FARMS NOT USING THE PRACTICES AND THE RESULTANT CHANGE IN WATER
                 QUALITY WILL BE MEASURED AND FOLLOWED FROM THE FARM, THROUGH THE STREAMS, AND INTO THE WATERS OF
                 THE RESERVOIR.
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*PROJECT: 005168-THE DEVELOPMENT OF CRITERIA FOR RECREATIONAL WATERS

TASK =D607C-000022 **EPA=R806841-01 ** (GRANT)
STARTING/ COMPLETION DATE : 07/79 - 02/80 : FY79

EPA OFFICER.: WD WATKINS EPA/HERL - CINC FTS 8-838-4843
INVESTIGATOR.: JL GALE UNIV OF WASHINGTON SCHOOL OF PUBLIC HLTH
MILESTONES...: 09/79 -FIELD STUDIES COMPLETED
12/79 -STUDY COMPLETED
02/80 -FINAL REPORT SUBMITTED - DATA ANALYSES FOR FRESH RECREATIONAL WATER QUALITY CRI
PROGRAM ID...: (PE-607) HEALTH EFFECTS - WATER QUALITY
FINAL OUTPUT.: FINAL REPORT - DATA ANALYSES FOR FRESH RECREATIONAL WATER QUALITY CRITERIA
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: BACTERIOLOGICAL ASSAYS DISTINGUISH TWO BEACHES ON LAKE WASHINGTON, ONE HEAVILY IMPACTED BY CONTAMINATION THE OTHER WITH NO SIGNIFICANT FECAL POLLUTION. ALL ASSAY PROCEDURES HAVE BEEN USED SUCCESSFULLY IN OTHER RESEARCH PROGRAMS.
ORDIS CODES..: RECN-005168 SSIE-GMA 6198 EPA -R806841-01 ORD -RD10B30-1079
PE -607
PROJ STATUS..: PROJECT-COMPLETED INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE PROJECT'S OBJECTIVE IS TO PROVIDE INFORMATION FOR THE DEVELOPMENT OF FRESH RECREATIONAL WATER QUALITY CRITERIA BY OBTAINING DATA ON THE LEVEL OF CONTAMINATION IN THE WATER AND RELATING THESE TO DATA OBTAINED ON HUMAN HEALTH EFFECTS. APPROACH: CONDUCT BACTERIOLOGICAL AND EPIDEMIOLOGICAL SURVEYS AT TWO BEACHES ON LAKE WASHINGTON NEAR SEATTLE. CONDUCT TELEPHONE FOLLOW-UPS, AND STATISTICALLY DETERMINE THE RELATIONSHIP BETWEEN MICROBIAL INDICATOR DENSITIES IN THE WATER AND ILLNESS AMONG EXPOSED BATHERS. MICROBIAL ASSAYS INCLUDE THOSE FOR ESCHERICHIA COLI, ENTEROCOCCI, AND CLOSTRIDIUM PERFRINGENS.

•PROJECT: 005196-DEVELOPMENT OF A MATHEMATICAL MODEL FOR ATMOSPHERIC AEROSOL DYNAMICS

TASK =G603A-AE-021 ••EPA=R806844-01 •• (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 10/81 : FY79

EPA OFFICER.: KL DEMERJIAN EPA/ESRL - RTP FTS 8-629-4545
INVESTIGATOR.: J SEINFELD CALIFORNIA INST OF TECH SCH OF ENG/CHEM & CHEM ENG
MILESTONES...: 10/81 -OPEN LITERATURE PUBLICATIONS ON AEROSOL MODEL
PROGRAM ID...: (PE-603) TRANS. AND FATE -AIR
FINAL OUTPUT.: OPEN LITERATURE PUBLICATIONS ON AEROSOL MODEL
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-005196 SSIE-GMA 6167 EPA -R806844-01 ORD -RG10B30-1079
PE -603
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: PREDICTION OF THE EFFECT OF CHANGES IN PRIMARY GASEOUS AND PARTICULATE EMISSION LEVELS ON PARTICULATE AIR QUALITY NECESSITATES THE DEVELOPMENT OF MATHEMATICAL MODELS THAT INCLUDE AEROSOL PROCESSES AND GAS-TO-PARTICLE CONVERSION. THE OBJECT OF THIS WORK IS TO STUDY FUNDAMENTAL ASPECTS OF ATMOSPHERIC AEROSOL SIZE DISTRIBUTIONS TO DEVELOP A MODEL CAPABLE OF PREDICTING OBSERVED AMBIENT AEROSOL PROPERTIES. APPROACH: THE DEVELOPMENT WORK WILL DRAW UPON EXISTING THEORETICAL MODELS WHERE APPROPRIATE, TO DESCRIBE THE RELEVANT AEROSOL DYNAMIC AND CHEMICAL PROCESSES INCLUDING GAS-PARTICLE INTERACTIONS, CONDENSATION GROWTH AND GAS TO PARTICLE CONVERSION. AMBIENT MEASUREMENTS OF AEROSOL SIZE DISTRIBUTION AND COMPOSITION WILL BE USED IN THE DEVELOPMENT OF THE MODELING APPROACH AS WELL AS FOR COMPARATIVE STUDIES FOR EVALUATING THE MODEL.

•PROJECT: 005922-SUPERCRITICAL FLUID REGENERATION OF ACTIVATED CARBON FOR TREATING PESTICIDE MANUFACTURING WASTEWATER

TASK =F610A-792360 ••EPA=R806874 •• (GRANT)
STARTING/ COMPLETION DATE : 06/79 - 10/80 : FY79

EPA OFFICER.: M SAMFIELD EPA/IERL - RTP FTS 8-629-2547
INVESTIGATOR.: RP DEFILIPPI ARTHUR D. LITTLE INC CAMBRIDGE MA 02140
PROGRAM ID...: (PE-610) INDUSTRIAL PROC. - WATER QUALITY
MANDATE......: 20-11 DAA FOR WATER PLANNING AND STANDARDS
ORDIS CODES..: RECN-005922 SSIE-GMA 6489 EPA -R806874 ORD -RF10B30-2079
PE -610
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DEVELOP SOLVENT REGENERATION OF ACTIVATED CARBON BASED ON SUPER-CRITICAL FLUID TECHNOLOGY AND TO APPLY THIS TO AUTHENTIC PESTICIDE MANUFACTURING WASTEWATERS. APPROACH: DOCUMENT PERFORMANCE AND COST OF TECHNOLOGY.

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U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
SSIE P806912
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT: Cooperative Agreement for Research on Effects of Acid Precipitation on Aquatic and Terrestrial Ecosystems

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Ellis B. Cowling, Principal Investigator
National Atmospheric Deposition Program
Assistant Director and Associate Dean for Research

NAME AND ADDRESS OF APPLICANT INSTITUTION

North Carolina State University
Raleigh, N. C. 27650

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

1. Objectives:

I. Determine the geographic distribution of sensitive aquatic and terrestrial ecosystems and those exhibiting symptoms caused by increased acid deposition. Identify current extent of alteration due to acid input and determine rate of change.

II. Determine actual and potential effects of acid precipitation on terrestrial and aquatic components of lake-watershed ecosystems characteristic of the northeastern U. S. Develop physical-chemical-biological models linking fluxes in ecological response parameters to changing acid precipitation inputs.

III. Determine the effect of acid precipitation alone and in combination with other environmental pollutants on native and commercial vegetation of the northeastern U. S.

2. Approach:

Subcontracts for research to achieve the objectives listed above will be awarded to various institutions and agencies in the United States and Canada.

3. Current Plans:

Applications to participate in the proposed research may be sent to Dr. Ellis B. Cowling at the address indicated above.

•PROJECT: 004921-METHODS DEVELOPMENT FOR ASSESSING ECONOMIC BENEFITS OF WATER POLLUTION CONTROL

TASK =X775A-000001 ••EPA=R806906-01 •• (GRANT)
STARTING/ COMPLETION DATE : 07/79 - 05/81 : FY79

EPA OFFICER.: A CARLIN — EPA/OHR- DAA — 202-755-0655
INVESTIGATOR.: AV KNEESE — RES FOR THE FUTURE INC — WASHINGTON — DC 20036
CS RUSSELL — RES FOR THE FUTURE INC — WASHINGTON — DC 20036
WO SPOFFORD — RES FOR THE FUTURE INC — WASHINGTON — DC 20036
PROGRAM ID...: (PE-775) ANTICIPATORY R & D
MANDATE.......: 20-10 AA FOR WATER AND WASTE MANAGEMENT
20-11 DAA FOR WATER PLANNING AND STANDARDS
20-13 DAA FOR DRINKING WATER
30-99 ECONOMICS
ORDIS CODES..: RECN-004921 SSIE-GMA 5861 EPA -R806906-01 ORD -RX10B30-5079
PE -775
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO ADVANCE THE STATE-OF-THE-ART OF ASSESSING THE ECONOMIC BENEFITS OF WATER POLLUTION CONTROL AND TO PROVIDE ESTIMATES OF THESE BENEFITS ON A NATIONAL BASIS. SPECIFIC OBJECTIVES ARE TO: 1. REVIEW AND EVALUATE EXISTING METHODS FOR, AND APPLICATIONS OF METHODS FOR VALUING WATER QUALITY IMPROVEMENTS; 2. DEVELOP IMPROVED MODELS FOR BENEFITS ESTIMATION AND TO IMPROVE THE METHODS AND TECHNIQUES FOR IMPLEMENTING THEM, AND 3. EXPLOIT EXISTING DATA SETS AND, WHERE APPROPRIATE, COLLECT NEW DATA FOR EMPIRICAL TESTING AND ESTIMATION USING THE NEW METHODS. APPROACH: THE RESEARCH WILL CONCENTRATE PRIMARILY ON THOSE CATEGORIES OF BENEFITS THOUGHT TO BE MOST IMPORTANT IN TERMS OF IMPROVING THE ESTIMATES OF WATER BENEFITS ON A NATIONAL BASIS, SUCH AS RECREATION AND AESTHETICS.

•PROJECT: 005992-STUDIES RELATED TO THE ORGANIC CHEMICAL ANALYSIS OF INDUSTRIAL SAMPLES

TASK =F825Q-792630 ••EPA=R806916 •• (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 09/81 : FY79

EPA OFFICER.: LD JOHNSON — EPA/IERL - RTP — FTS 8-629-2557
INVESTIGATOR.: CH LOCHMULLER — DUKE UNIV — DEPT. OF BOTANY
PROGRAM ID...: (PE-825) FUEL PROCESSING ,PREPARATION ADV COMBUSTION
MANDATE.......: 20-11 DAA FOR WATER PLANNING AND STANDARDS
20-14 DAA FOR SOLID WASTE
20-23 DAA FOR AIR QUALITY PLANNING AND STANDARDS
ORDIS CODES..: RECN-005992 SSIE-GMA 6596 EPA -R806916 ORD -RF10B30-2079
PE -825
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: PROVIDE UNDERSTANDING OF THE BEHAVIOR OF POROUS POLYMER SORBENTS IN SOURCE SAMPLING APPLICATIONS.

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Form Approved
OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. (Do not use this space)
SSIE R 806 919
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Alternatives to Conventional Pollution Control

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Mr. Arsen Darnay, Director, Center for Economic Studies (Principal Investigator); Mr. John Carpenter, Associate Analyst; Ms. Jean Williams, Assistant Environmental Specialist; Mr. Chris Lough, Assistant Environmental Engineer; Mr. Greg Conboy, Assistant Management Analyst; Mr. James Harrington, Social/Economic Planning Specialist

NAME AND ADDRESS OF APPLICANT INSTITUTION

Midwest Research Institute
Center for Economic Studies
10701 Red Circle Drive
Minnetonka, Minnesota 55343

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The best approaches to pollution control have always been represented by systems that simultaneously achieve a number of objectives at the lowest possible cost. Such systems minimize impacts on the environment in all of the media, maximize the recovery and reuse of materials and of energy, take advantage of special circumstances existing at the site, and achieve these desirable objectives at a lower cost than would be typically associated with more conventional systems.

The objective of this project is to increase the awareness of research managers and planners inside and outside the Environmental Protection Agency about such novel and synergistic approaches to pollution control, thus stimulating new departures and research ventures.

The general method is the assembly of a reasonable data base about the technical, institutional, and economic aspects of unusual, synergistic, multi-media, and multi-functional pollution control programs and concepts and the use of this data base as the starting point for a policy assessment at a conference of research managers. The program is in its initiation stage.

·PROJECT: 005130-A MULTIPLE PROCESS APPROACH FOR REMOVAL OF ORGANIC SUBSTANCES FROM DRINKING WATER

TASK =CC61 -S1T091 ··EPA=S806925-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 10/84 : FY80

EPA OFFICER.: B LYKINS — EPA/MERL - CINC — 513-684-7282
INVESTIGATOR.: NV BRODTMANN — JEFFERSON PARISH WATER DEPT. — JEFFERSON — LA 70121
W KOFFSKEY — JEFFERSON PARISH WATER DEPT. — JEFFERSON — LA 70121
MILESTONES...: 10/80 -INITIATE PILOT COLUMN STUDIES
10/81 -INITIATE FULL SCALE CARBON ADSORPTION AND REACTIVATION SYSTEM
01/82 -INTERIM REPORT
10/83 -COMPLETE TESTING PROGRAM
PROGRAM ID...: (PE-C61) DRINK WATER TREATMENT & GROUND WATER PROT
MANDATE......: 10-15 SAFE DRINKING WATER ACT
20-13 DAA FOR DRINKING WATER
ORDIS CODES..: RECN-005130 SSIE-GMA 6210 1 EPA -S806925-01 ORD -RC10B30-1080
PE -C61
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE PROJECT WILL EVALUATE OPERATIONAL MODES OF GRANULAR ACTIVATED CARBON CONTACTORS FOR ORGANIC REMOVAL, BYPRODUCT FORMATION FROM OXONATION, OPERATIONAL AND MAINTENANCE COSTS AND ENVIRONMENTAL EMISSIONS FROM ON-SITE CARBON REACTIVATION. APPROACH: THE PROJECT INVOLVES CONSTRUCTION AND LONG TERM OPERATION OF A MULTI-MODAL, PILOT AND LARGE SCALE GRANULAR ACTIVATED CARBON SYSTEM DESIGNED SPECIFICALLY FOR REMOVAL OF ORGANIC SUBSTANCES. INTENSIVE ANALYSIS OF THE EFFLUENT OF EACH PROCESS WILL PROVIDE DEFINITIVE INFORMATION REGARDING THE FATE OF MANY ORGANIC AND CERTAIN METAL INORGANICS IN ADDITION TO MICROBIOLOGICAL DATA. OPERATIONAL EXPERIENCES AND COST DATA WILL BE COLLECTED.

·PROJECT: 005446-IDENTIFICATION OF PCBS IN COMMERICAL MIXTURES AND ENVIRONMENTAL SAMPLES

TASK =N769 -000052 ··EPA=R806928 ·· (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 08/82 : FY79

EPA OFFICER.: MD MULLIN — EPA/ERL - DULUTH — FTS 8-226-7811
INVESTIGATOR.: SH SAFE — UNIV OF GUELPH — GUELPH — CANADA
MILESTONES...: 08/82 -REPORT - UNKNOWNS IDENTIFIED
PROGRAM ID...: (PE-769) GREAT LAKES PROGRAM
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005446 SSIE-GMA 6313 EPA -R806928 ORD -RN10B30-1079
PE -769
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVES: DETERMINE THE PRECISE COMPOSITION OF COMMERICAL PCB FORMULATION BY SYNTHESIZING STANDARDS TO COMPOSE AGAINST THE COMMERICAL FORMULATION. BY EXTRAPOLATION, DETERMINE PRECISE COMPOSITION OF PCBS IN ENVIRONMENTAL SAMPLE. APPROACH: SYNTHESIZING INDIVIDUAL PCB COMPOUNDS WHERE STANDARDS DO NOT PRESENTLY EXIST. A COMBINATION OF NMR, CAPILLARY GC AND GC/MS WILL BE USED TO CONFIRM STRUCTURE.

•PROJECT: 006297-RESPIRATORY CARCINOGENESIS OF DIESEL FUEL EMISSIONS AND RELATED SUBSTANCES
TASK =H815 -900400 **EPA=R806929 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 08/83 : FY79

EPA OFFICER.: DE GARDNER EPA/HERL - RTP FTS 8-629-2531
INVESTIGATOR.: UNKNOWN UNKNOWN
MILESTONES...: 08/79 -START DOSE RANGE STUDIES WITH EXTRACTS
06/80 -BEGIN CHRONIC STUDY - DIESEL PARTICULATE
06/82 -COMPLETE CHRONIC STUDY, PHASE I.
09/82 -COMPLETE HISTOPATHOLOGY, PHASE I.
01/83 -PRELIMINARY REPORT, PHASE 1.
10/80 -START CHRONIC STUDY, PHASE 2.
10/82 -COMPLETE CHRONIC STUDY, PHASE 2.
02/83 -COMPLETE HISTOPATHOLOGY, PHASE 2.
05/83 -FINAL REPORT
PROGRAM ID...: (PE-815) HEALTH EFFECTS/ TRANS SOURCES -AIR
MANDATE......: 20-24 DAA FOR MOBILE SOURCE AIR POLLUTION CONTROL
ORDIS CODES..: RECN-006297 SSIE-HZ 799004 EPA -R806929 ORD -RH10830-2079
LABN-H815 -900400 PE -815
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THIS PROJECT IS DESIGNED TO DETERMINE IF THE EXTRACTS AND/OR PARTICLES PRESENT IN DIESEL FUEL EMISSIONS POSSESS CARCINOGENIC OR COCARCINOGENIC ACTIVITY RELATIVE TO THE PULMONARY EPITHELIUM. IN ADDITION THE RESULTS SHOULD INDICATE THE RELATIVE POTENCY OF THESE COMPOUNDS BY COMPARING THEIR CARCINOGENICITY TO THAT OF OTHER MATERIALS OF KNOWN EPIDEMIOLOGIC SIGNIFICANCE (ROOFING TAR, COKE OVEN EXTRACT AND CIGARETTE SMOKE CONDENSATE. THE INVESTIGATORS WILL UTILIZE THE INTRATRACHEAL INSTILLATION METHOD OF SAFFIOTTI FOR THE ADMINISTRATION OF THE TEST SUBSTANCES. A WHOLE ANIMAL MODEL WILL BE USED. THE RANGE FINDING STUDIES ORIGINALLY PROPOSED HAVE BEEN FINISHED AND THE INFORMATION GAINED DURING THE PERFORMANCE OF THIS GRANT WILL BE USED IN PLANNING THE CHRONIC STUDY. THIS GRANT WAS TERMINATED ON OCTOBER 1, 1979 AND THE CHRONIC STUDY WILL BE CONDUCTED UNDER A NEW GRANT (R806929) WHICH WAS AWARDED ON OCTOBER 1, 1979

*PROJECT: 006621-RESPIRATORY CARCINOGENESIS OF DIESEL FUEL EMISSIONS AND RELATED SUBSTANCES
TASK =HC01 -900400 **EPA=R806929 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 08/83 : FY80

EPA OFFICER.: DE GARDNER EPA/HERL - RTP FTS 8-629-2531
INVESTIGATOR.: GRUBBS UNKNOWN
MILESTONES...: 08/79 -START DOSE RANGE STUDIES WITH EXTRACTS
06/80 -BEGIN CHRONIC STUDY - DIESEL PARTICULATE
06/82 -COMPLETE CHRONIC STUDY, PHASE I.
09/82 -COMPLETE HISTOPATHOLOGY, PHASE I.
01/83 -PRELIMINARY REPORT, PHASE 1.
10/80 -START CHRONIC STUDY, PHASE 2.
10/82 -COMPLETE CHRONIC STUDY, PHASE 2.
02/83 -COMPLETE HISTOPATHOLOGY, PHASE 2.
05/83 -FINAL REPORT
PROGRAM ID...: (PE-C01) HEALTH EFFECTS/ TRANS SOURCES -AIR
MANDATE......: 20-24 DAA FOR MOBILE SOURCE AIR POLLUTION CONTROL
ORDIS CODES..: RECN-006621 SSIE-HZ 809004 EPA -R806929 ORD -RH10B30-2080
PE -C01
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: THIS PROJECT IS DESIGNED TO DETERMINE IF THE EXTRACTS AND/OR PARTICLES PRESENT IN DIESEL FUEL EMISSIONS POSSESS CARCINOGENIC OR COCARCINOGENIC ACTIVITY RELATIVE TO THE PULMONARY EPITHELIUM. IN ADDITION THE RESULTS SHOULD INDICATE THE RELATIVE POTENCY OF THESE COMPOUNDS BY COMPARING THEIR CARCINOGENICITY TO THAT OF OTHER MATERIALS OF KNOWN EPIDEMIOLOGIC SIGNIFICANCE (ROOFING TAR, COKE OVEN EXTRACT AND CIGARETTE SMOKE CONDENSATE. THE INVESTIGATORS WILL UTILIZE THE INTRATRACHEAL INSTILLATION METHOD OF SAFFIOTTI FOR THE ADMINISTRATION OF THE TEST SUBSTANCES. A WHOLE ANIMAL MODEL WILL BE USED. THE DOSE-RANGE STUDY ON DIESEL PARTICLES AND DIESEL PARTICLE - FE2O3 MIXTURES HAS BEEN EVALUATED FROM A TOXICITY STANDPOINT. NONE OF THE EXPERIMENTAL TREATMENTS APPEARED TO AFFECT MORTALITY DURING TREATMENT OR THE 5-WEEK RECOVERY PERIOD NOR FINAL WEIGHT OF THE HAMSTERS. ANIMALS IN HIGH DOSE TEST GROUPS LOST SMALL AMOUNTS OF WEIGHT IN THE FIRST 2-3 WEEKS, THEN RECOVERED AND GAINED WEIGHT COMPARABLE TO CONTROL GROUPS. NONRESPIRATORY TRACT PATHOLOGY IN DIESEL PARTICLE GROUPS WAS NOT SIGNIFICANT. TRACHEA AND LUNGS IN TREATED ANIMALS SHOWED A VARIETY OF RESPONSES INCLUDING HYPERPLASIA, METAPLASIA, ADENOMATOID LESIONS, AND EARLY ADENOMA. THESE CHANGES WERE MORE SEVERE THAN IN THEIR RESPECTIVE CONTROL GROUPS. THE DOSE-RANGE SUTDY OF THE THREE EXTRACTS (DIESEL EXHAUST, COKE OVEN AND ROOFING TAR) AND OF CIGARETTE SMOKE CONDENSATE IS IN PROGRESS. EFFECTS ON MORTALITY AND WEIGHT GAIN WILL BE EVALUATED DURING THE NEXT QUARTER.

242.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA R806930 01

TITLE OF PROJECT

Idaho Epidemiologic Studies Program

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Charles D. Brokopp, Dr. P.H. - Project Director
Joe Gabica - Supervisory Pesticide Chemist
Pamela M. Smith - Pesticide Research Analyst

Idaho Department of Health And Welfare
Bureau of Laboratories

NAME AND ADDRESS OF APPLICANT INSTITUTION

Idaho Department of Health and Welfare
Statehouse
Boise, Idaho 83720

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The major objectives of this research are:

1. To determine the types and amounts of pesticides used in Idaho.
2. To determine the magnitude of human exposure to pesticides by monitoring pesticide residues in biological fluids.
3. To develop an analytical method for dinoseb (2-sec-Butyl-4,6 dinitrophenol).
4. To assess all pesticide incidents that are reported in Idaho and Montana.
5. To identify major cancer patterns in relation to pesticide usage.
6. To compare the incidence of chromosomal aberrations in peripheral lymphocytes of pesticide formulators.

2422

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO.-(Do not use this space)

SSIE

EPA R806931 01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Consortium for Groundwater Quality Research Center

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Larry Canter Director and Professor School of Civil Engineering and Environmental Science	Dr. Norman Durham Dean, Graduate College	Dr. Herb Ward Professor, Environmental Science and Engineering

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Oklahoma Norman, OK 73019	Oklahoma State Univ. Stillwater, OK	Rice University Houston, Texas

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

A Consortium of the University of Oklahoma, Oklahoma State University, and Rice University is proposed to be designated by EPA as the National Center for Groundwater Quality Research. Priority areas for the first year of operation include research on subsurface characteristics, transport and fate of pollutants, and methods development.

*PROJECT: 005108-DIE-OFF STUDIES OF PARASITE EGGS UPON STORAGE IN SLUDGE

TASK =CC36 -S1TC54 **EPA=R806954-01 ** (GRANT)
STARTING/ COMPLETION DATE : 12/79 - 07/83 : FY80

EPA OFFICER.: G STERN EPA/MERL - CINC FTS-8-684-7654
INVESTIGATOR.: ES KANESHIRO UNIV OF CINCINNATI ARTS & SCI/GEO DEPT
MILESTONES...: 07/83 -FINAL REPORT: DIE-OFF OF PARASITE EGGS UPON STORAGE IN SLUDGE
PROGRAM ID...: (PE-C36) URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
FINAL OUTPUT.: REPORT: "DIE-OFF OF PARASITE EGGS UPON STORAGE IN SLUDGE"
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
10-05 RESOURCE CONSERVATION AND RECOVERY ACT
ORDIS CODES..: RECN-005108 SSIE-GMA 6219 1 EPA -R806954-01 ORD -RC10B30-1080
PE -C36
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OBJECTIVE IS TO DETERMINE THE RATE OF INACTIVATION OF HELMINTH EGGS (SELECT SPECIES OF NEMATODES AND CESTODES KNOWN TO BE RESISTANT TO CONVENTIONAL SLUDGE STABILIZATION) WHEN SEEDED IN SLUDGE BEFORE OR AFTER MESOPHILIC ANAEROBIC OR AEROBIC DIGESTION. THE TEST CONDITIONS ARE TO SIMULATE STORAGE IN SLUDGE LAGOON ENVIRONMENTS. APPROACH: THE PARASITE EGGS WILL BE SEEDED INTO RAW SLUDGE AND THEN DIGESTED EITHER ANAEROBICALLY OR AEROBICALLY AND PARASITE EGGS WILL ALSO BE ADDED TO DIGESTED (ANAEROBICALLY OR AEROBICALLY) SLUDGES AND STORED AT 4 DEGREES CENTIGRADE AND 25 DEGREES CENTIGRADE WITHIN DRUMS INSERTED INTO THE GROUND. SLUDGE SAMPLES FROM THE 12 TEST CONDITIONS WILL BE ANALYZED FOR PARASITES AT THE BEGINNING OF THE TEST AND EACH 3 MONTHS FOR 2 1/2 YEARS TO DETERMINE THE RATE OF PARASITE INACTIVATION WITH TIME.

*PROJECT: 004922-METHODS DEVELOPMENT FOR ASSESSING AIR POLLUTION CONTROL BENEFITS

TASK =X775A-000002 **EPA=R806972-01 ** (GRANT)
STARTING/ COMPLETION DATE : 07/79 - 07/80 : FY79

EPA OFFICER.: A CARLIN EPA/OHR- DAA 202-755-0655
INVESTIGATOR.: RM ADAMS UNIV OF WYOMING DEPT. OF ECONOMICS
DS BROOKSHIRE UNIV OF WYOMING DEPT. OF ECONOMICS
RC DARGE UNIV OF WYOMING DEPT. OF ECONOMICS
WD SCHULZE UNIV OF WYOMING DEPT. OF ECONOMICS
PROGRAM ID...: (PE-775) ANTICIPATORY R & D
MANDATE......: 10-02 CLEAN AIR ACT
20-23 DAA FOR AIR QUALITY PLANNING AND STANDARDS
20-R09 EPA REGION IX
30-99 ECONOMICS
ORDIS CODES..: RECN-004922 SSIE-GMA 5865 EPA -R806972-01 ORD -RX10B30-5079
PE -775
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO IMPROVE THE ASSESSMENT OF THE ECONOMIC BENEFITS OF AIR POLLUTION WITH THE FOLLOWING SPECIFIC OBJECTIVES: 1. THE VALUATION OF ATMOSPHERIC VISIBILITY IN THE NATIONAL PARKLANDS OF THE ROCKY MOUNTAIN REGION; 2. THE DESIGN OF ECONOMIC METHODOLOGIES FOR ASSESSING THE BENEFITS OF CONTROLLING ACID PRECIPITATION AND THE PROVISION OF PRELIMINARY INDICATIONS OF THE BENEFITS OF CONTROL; 3. AN ASSESSMENT OF THE BENEFITS OF AIR POLLUTION CONTROL IN THE SAN FRANCISCO BAY AREA; AND 4. THE DESIGN OF ECONOMIC METHODOLOGIES FOR ASSESSING THE BENEFITS OF REDUCING SOILING AND MATERIALS DECAY FROM PARTICULATE AIR POLLUTION.

*PROJECT: 004928-BENEFIT-COST ANALYSIS FOR REGULATION OF DAMAGE TO THE OZONE SHIELD

TASK =X861A-000004 **EPA=R806973-01 ** (GRANT)
STARTING/ COMPLETION DATE : 07/79 - 10/80 : FY79

EPA OFFICER.: JR HIBBS EPA/OHR- DAA 202-426-2317
INVESTIGATOR.: JH CUMBERLAND UNIV OF MARYLAND BUR OF BUS & ECONOMIC RES
MILESTONES...: 10/79 -DRAFT REPORT ON RELATIONSHIP OF ECONOMIC GROWTH & CONTROL OF OZON
01/80 -REPORT ON DISTRIBUTION OF BENEFITS OF OZONE DEPLETION CONTROL
07/80 -FINAL REPORT ON GROWTH/OZONE
06/80 -REVISED COST/BENEFIT ANALYSIS OF OZONE DEPLETION CONTROL
08/80 -REPORT ON EFFECTS OF OZONE DEPLETION ON CLIMATE AND CROPS
10/80 -FINAL INTEGRATED REPORT
PROGRAM ID...: (PE-861) HEALTH EFFECTS STRATS MODS
MANDATE......: 10-02 CLEAN AIR ACT
10-03 TOXIC SUBSTANCES CONTROL ACT
20-31 DAA FOR TESTING AND EVALUATION
20-32 DAA FOR PROGRAM INTEGRATION AND INFORMATION
ORDIS CODES..: RECN-004928 SSIE-GMA 5867 EPA -R806973-01 ORD -RX10B30-5079
PE -861
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JUL-SEP 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO IMPROVE EXISTING BENEFIT-COST ANALYSES OF CONTROL OF STRATOSPHERIC OZONE DEPLETION BY SPECIFICALLY CONSIDERING HOW TO ASSESS HEALTH EFFECTS ON FUTURE GENERATIONS, HOW TO ASSESS POTENTIAL IRREVERSIBLE EFFECTS, AND HOW TO RELATE SUCH EFFECTS WITH VARYING ECONOMIC GROWTH RATES IN DIFFERENT AREAS, AND OVER TIME. APPROACH: USE THE CONCEPTUAL FRAMEWORK OF THE INDIVISIBILITY OF THE GLOBAL RISK FROM STRATOSPHERIC OZONE DEPLETION TO UNDERTAKE AN EMPIRICAL ANALYSIS OF RISK UNDER DIFFERENT ASSUMPTIONS OF ECONOMIC GROWTH PATTERNS OF THE EFFECTS OF OZONE DEPLETION. INCORPORATE FINDINGS FROM BOTH OF THESE EFFORTS IN A REVISED BENEFIT-COST ANALYSIS.

244.1

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NOTICE OF RESEARCH PROJECT

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

PROJECT NO. (Do not use this space)
SSIE
EPA R806988-01-0

TITLE OF PROJECT
Aquatic Food Web Dynamics in a Floodplain Swamp System

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

William H. Queen, Director, Institute for Coastal and Marine Resources and Professor of Biology

Robert P. Sniffen, Associate Scientist, Institute for Coastal and Marine Resources

NAME AND ADDRESS OF APPLICANT INSTITUTION

Institute for Coastal and Marine Resources
East Carolina University
Greenville, North Carolina 27834

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Flowing water floodplain swamps of the Southeastern U.S. are seasonally inundated during the winter and early spring. Aquatic and semi-aquatic invertebrate populations are abundant in the floodplain during seasonal inundation. Comparative studies of fish populations in these natural swamp streams versus channelized swamp streams show a dramatic reduction in fish standing crops following channelization.

The purpose of the proposed research is to establish the importance of the inundated floodplain as a source of food and habitat space for stream fish and to investigate its role as a nursery area.

Fish will be captured with a variety of techniques from the inundated floodplain and the stream channel. Gut analyses will determine the kinds and relative amounts of food consumed. Prior studies have shown a significant difference in invertebrate community species composition between floodplain and stream channel. Invertebrate benthic and drift samples will be taken in both areas for comparison with fish gut analyses to establish that fish from the floodplain were feeding there and to ascertain what portion of a stream fish's diet may have originated from the floodplain. The first year of research will be conducted in one swamp system and the successful methods applied to 6-10 systems in the South Carolina - North Carolina Coastal Plain during the second year.

*PROJECT: 005109-SURVEY AND EVALUATION OF ENERGY EFFICIENT AIR AERATION SYSTEMS USED IN ACTIVATED SLUDGE TREATMENT
TASK =CC36 -S2TB13 **EPA=R806990 ** (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 12/80 : FY80

EPA OFFICER.: RC BRENNER — EPA/MERL - CINC — FTS-8-684-7657
INVESTIGATOR.: DH HOUCK — ASSN OF METROPOL SEWERAGE — WASHINGTON DC 20036

MILESTONES...: 11/79 -EUROPEAN SURVEY WORK COMPLETED
11/79 -INTERIM REPORT SUBMITTED TO EPA PROJECT OFFICER
01/80 -UNITED STATES SURVEY WORK COMPLETED
07/80 -FINAL REPORT SUBMITTED TO EPA PROJECT OFFICER
12/80 -FINAL REPORT PUBLISHED

PROGRAM ID...: (PE-C36) URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY

FINAL OUTPUT.: REPORT ON EVALUATION OF PROCESS

MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-12 DAA FOR WATER PROGRAM OPERATIONS

CURR. RESULTS: PILOT SCALE EQUIPMENT BEING OPERATED TO DETERMINE INDICATE FINE BUBBLE AIR DIFFUSION SYSTEMS ARE 1.7 TO 2.0 TIMES MORE ENERGY EFFICIENT ON THE AVERAGE THAN COARSE BUBBLE DIFFUSERS AND ARE NOT SUBJECT TO RAPID CLOGGING AND HIGH MAINTENANCE COSTS DRAFT REPORT WAS RECEIVED FOR REVIEW IN MARCH 1980.
FEASIBILITY OF PROCESS.EUROPEAN AND U.S. SURVEY RESULTS

ORDIS CODES..: RECN-005109 SSIE-GMA 6220 1 EPA -R806990 ORD -RC10830-5080
PE -C36

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN * UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROJECT IS TO EXPEDITIOUSLY PROVIDE, THROUGH ON-SITE INSPECTION AND REVIEW OF PLANT RECORDS, SUPPORTIVE DATA FOR NEW GENERATION FINE BUBBLE SUBMERGED AIR AERATION SYSTEMS OPERATING IN THE UNITED KINGDOM (AND TO A LESSER DEGREE IN HOLLAND AND THE UNITED STATES) TO GUIDE EPA AND TREATMENT PLANT DESIGNERS IN THE APPLICATION OF SUCH SYSTEMS WHILE MORE DETAILED INFORMATION IS BEING DEVELOPED IN THIS COUNTRY. APPROACH: A TOTAL OF 8-13 TREATMENT PLANTS WITH COMPREHENSIVE DATA BASES WERE VISITED IN THE U.K., 2 IN HOLLAND, AND 4 IN THE U.S. OPERATING LOGS, PLANT RECORDS, AND SPECIAL STUDIES REPORTS WERE REVIEWED, EVALUATED, AND SUMMARIZED. THIS INFORMATION WAS SUPPLEMENTED WITH ON-SITE DISCUSSIONS WITH PLANT OPERATING PERSONNEL. THE INFORMATION COLLECTED INCLUDED PLANT PERFORMANCE DATA, AERATION TANK AND DIFFUSER GEOMETRY, DIFFUSER MAINTENANCE AND AIR CLEANING REQUIREMENTS, OXYGEN TRANSFER AND POWER DATA, AND OPERATING AND CAPITAL COSTS. THE PRINCIPAL INVESTIGATOR COORDINATED THE ON-SITE SURVEY WORK WITH THE U.K. WATER RESEARCH CENTER.

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•PROJECT: C05164-DEVELOPMENT OF MONITORING METHODS TO DETERMINE THE PRESENCE OF MUTAGENIC
                 COMPOUNDS IN SOIL AND CROPS FROM LAND DISPOSAL OF SLUDGE
                  TASK =DC27 -1E0005 ••EPA=R807009      •• (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 09/81 :   FY80
 EPA  OFFICER.: NE KOWAL                EPA/HERL - CINC                  FTS 8-684-7477
 INVESTIGATOR.: PK HOPKE                UNIV OF ILLINOIS                 AGRIC/ECON DEPT
                MJ PLEWA                UNIV OF ILLINOIS                 AGRIC/ECON DEPT
 MILESTONES...: 09/81 -REPORT ON USE OF MAIZE WAXY-LOCUS ASSAY FOR MUTAGENESIS ASSAY OF SLUDGE-AMENDED
 PROGRAM ID...: (PE-C27 )          HEALTH EFFECTS - WATER QUALITY
 FINAL OUTPUT.: REPORT ON USE OF MAIZE WAXY-LOCUS ASSAY
                FOR MUTAGENESIS ASSAY OF SLUDGE-AMENDED SOIL.
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
 ORDIS CODES..: RECN-005164           SSIE-GMA  6174 1      EPA -R807009        ORD -RD10B30-1080
                LABN-D607A-011C       PE  -C27
 PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                CATEGORY-RESEARCH     ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO DEVELOP A HIGHER-PLANT MUTAGENIC ASSAY OF SLUDGE AND SLUDGE-AMENDED SOIL. APPROACH:
                 UTILIZE MAIZE (CORN) PLANTS WITH WAXY LOCUS MUTATION, AND CALIBRATE AGAINST STANDARD IN VITRO
                 MUTAGENESIS ASSAY SYSTEMS.

•PROJECT: 005099-EFFECTS OF CARBON FIBER COMPOSITE MATERIALS IN SOLID WASTE PROCESSING

                  TASK =CC07 -C00712 ••EPA=R807011     •• (GRANT)
                  STARTING/ COMPLETION DATE : 07/79 - 06/80 :   FY80
 EPA  OFFICER.: CC WILES                EPA/MERL - CINC                  FTS-8-684-7881
 INVESTIGATOR.: GJ TREZEK               UNIV OF CALIFORNIA               DEPT OF CHEM ENGIN
 MILESTONES...: 02/80 -PRELIMINARY REPORT AVAILABLE ON INITIAL EXPERIMENTS ON EFFECTS OF CARBON FIBER
                06/80 -FINAL REPORT DETAILING RESULTS AND EFFECTS OF CARBON FIBER ON PROCESSING EQUIPM
 PROGRAM ID...: (PE-C07 )          CHARAC. & MEASUREMENT METHODS DEVEL - AIR
 FINAL OUTPUT.: FINAL REPORT DETAILING RESULTS AND EFFECTS OF
                CARBON FIBER ON PROCESSING EQUIPMENT IN PLANT.
 MANDATE......: 30-99     SOLID WASTE/CARBON FILTER
 ORDIS CODES..: RECN-005099           SSIE-GMA  6222 1      EPA -R807011        ORD -RC10B30-3080
                PE  -C07
 PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                CATEGORY-RESEARCH     ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO DETERMINE THE EFFECTS CARBON FIBER COMPOSITE MATERIALS MAY HAVE ON THE ENVIRONMENT AND
                 ON REFUSE PROCESSING EQUIPMENT AND PROCESSES WHEN DISPOSED OF IN THE SOLID WASTE STREAM. APPROACH:
                 USING AN EXISTING RESOURCE RECOVERY AND REFUSE PROCESSING PILOT PLANT, REFUSE SEEDED WITH CARBON
                 FIBER COMPOSITE MATERIALS WILL BE PROCESSED THROUGH SHREDDERS, AIR CLASSIFIER, SCREENS, ETC. SAMPLE
                 WILL BE TAKEN TO DETERMINE CARBON FIBER IN THE EMISSIONS. EFFECTS ON EQUIPMENT WILL BE NOTED.
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246.1

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NOTICE OF RESEARCH PROJECT

PROJECT NO. *(Do not use this space)*

SSIE

EPA R-807012-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT "Assessment of Surface Impoundments of Waste Water in Iowa for Potential Ground Water Contamination"

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

John L. Mustermann, Project Director

Richard Dague, Project Associate

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Iowa, Iowa City, Iowa 52242

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

This project will consider surface impoundments of liquid wastes discharged by municipalities, industry and agriculture in Iowa. An estimated 1500 impoundments will be identified and located by use of State and Federal NPDES permits, low level aerial photography, infrared photography, quadrangle mapping and selected site visits. A representative random sample of these will be characterized with respect to design and construction, nature and volume of wastewater treated and potential for groundwater contamination by enfiltration. This characterization will be based on engineering drawings, State monitoring reports and NPDES permits.

•PROJECT: 005236-INTERNATIONAL SYMPOSIUM ON LIVESTOCK WASTES--1980

TASK =L770D-1-0071 ••EPA=R807013 •• (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 12/80 : FY79

EPA OFFICER.: RG KREIS EPA/ERL - ADA 405-332-8800 EXT. 30
INVESTIGATOR.: RH HAHN AMER SOC OF AGRICULTURAL ST. JOSEPH MI 49085
MILESTONES...: 04/80 -CONFERENCE DATES
12/80 -PROCEEDINGS DISTRIBUTION
PROGRAM ID...: (PE-770) RENEWABLE RESOURCES -WATER QUALITY
FINAL OUTPUT.: PROCEEDINGS DISTRIBUTION
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: PRELIMINARY CALL FOR PAPERS DISTRIBUTED.
ORDIS CODES..: RECN-005236 SSIE-GMA 6160 , EPA -R807013 ORD -RL10B30-1079
PE -770
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE FOURTH INTERNATIONAL SYMPOSIUM ON LIVESTOCK WASTES --1980 WILL BRING TOGETHER SCIENTISTS, ENGINEERS, EDUCATORS, ELECTED OFFICIALS, PLANNERS, CONSULTANTS, STOCKMEN, AND FEDERAL, STATE, AND LOCAL ENFORCEMENT OFFICIALS TO DISCUSS THE APPLICATION OF WASTE MANAGEMENT DESIGN TECHNOLOGY AND FUTURE WASTE MANAGEMENT NEEDS FOR THE INDUSTRY. APPROACH: CONFERENCE.

•PROJECT: 005237-THE FOURTH INTERNATIONAL SYMPOSIUM ON LIVESTOCK WASTES--1980

TASK =L770D-000071 ••EPA=R807013 •• (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 12/80 : FY79

EPA OFFICER.: RG KREIS EPA/ERL - ADA 405-332-8800 EXT. 30
INVESTIGATOR.: RH HAHN AMER SOC OF AGRICULTURAL ST. JOSEPH MI 49085
MILESTONES...: 04/80 -SYMPOSIUM
PROGRAM ID...: (PE-770) RENEWABLE RESOURCES -WATER QUALITY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005237 SSIE-GMA 6161 EPA -R807013 ORD -RL10B30-1079
PE -770
PROJ STATUS..: PROJECT-HISTORICAL INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO PRESENT THE APPLICATION OF ANIMAL WASTES MANAGEMENT DESIGN TECHNOLOGY AND FUTURE MANAGEMENT NEEDS FOR THE INDUSTRY. APPROACH: AN INTERNATIONAL SYMPOSIUM.

*PROJECT: 005144-DEGRADATION RATES & SORPTION CHARACTERISTICS OF PESTICIDES UNDER CONTROLLED REDOX POTENTIAL & PH CONDITIONS IN SEDIMENTS (ABB

TASK =KC1V -000382 **EPA=R807018 ** (GRANT)
STARTING/ COMPLETION DATE : 11/79 - 10/81 : FY80

EPA OFFICER.: HW HOLM EPA/ERL - ATHENS FTS-8-250-3357
INVESTIGATOR.: WH PATRICK LOUISIANA STATE UNIV CTR FOR WETLANDS RES
RP GAMBRELL LOUISIANA STATE UNIV CTR FOR WETLANDS RES
CN REDDY LOUISIANA STATE UNIV CTR FOR WETLANDS RES
MILESTONES....: 10/81 -REPORT - INFLUENCE OF EH AND PH ON FATE OF PESTICIDES IN WATER-SEDIMENT SYSTEMS
PROGRAM ID....: (PE-C1V) TRANSPORT AND FATE - TOXICS
ORDIS CODES...: RECN-005144 SSIE-GMA 6246 1 EPA -R807018 PE -C1V
LABT-EPE
PROJ STATUS...: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: THE OBJECTIVE IS TO DETERMINE THE EFFECTS OF PHYSICOCHEMICAL CONDITIONS IN SEDIMENT-WATER SYSTEMS ON THE FATE OF METHYL PARATHION, 2,4-D AND FENVALERATE. DEGRADATION OF PESTICIDES WILL BE MEASURED AS A FUNCTION OF SEDIMENT TYPE, EH, PH, SALINITY, AND AEROBIC-ANAEROBIC CONDITIONS; SORPTION OF PESTICIDES WILL BE MEASURED AS A FUNCTION OF SEDIMENT TYPE, EH, PH, SALINITY, AND ADSORPTIVE SOIL COMPONENTS; AND TRANSPORT OF PESTICIDES BETWEEN SEDIMENTS AND OVERLYING WATER WILL BE MEASURED AS A FUNCTION OF SEDIMENT TYPE AND EH. APPROACH: DEGRADATION RATES OF PESTICIDES WILL BE DETERMINED IN WATER SEDIMENT SYSTEMS HAVING EH AND PH SET AND CONTROLLED AUTOMATICALLY AT THE DESIRED VALUE; PARTITIONING OF PESTICIDES WILL BE MEASURED AFTER A 24-HOUR EQUILIBRATION PERIOD IN WATER-SEDIMENT SYSTEMS SET AT THE DESIRED CONDITION; AND TRANSPORT OF PESTICIDES WILL BE MEASURED 1) FROM PESTICIDE-CONTAINING SEDIMENTS TO THE OVERLYING WATER COLUMN, AND 2) FROM A PESTICIDE-CONTAINING WATER COLUMN TO AN UNCONTAMINATED SEDIMENT BELOW.

*PROJECT: 005151-SOLVENT EXTRACTION OF ORGANIC PRIORITY POLLUTANTS FROM WATER

TASK =L610C-000068 **EPA=R807027-01 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 09/81 : FY79

EPA OFFICER.: ML WOOD EPA/ERL - ADA FTS 8-743-2226
INVESTIGATOR.: CJ KING UNIV OF CALIFORNIA DEPT OF CHEM ENGIN
MILESTONES....: 09/81 -FINAL REPORT - REMOVAL EFFICIENCY OF PRIORITY POLLUTANTS FROM WASTEWATERS BY SO
PROGRAM ID....: (PE-610) INDUSTRIAL PROC. - WATER QUALITY
FINAL OUTPUT.: REPORT ON REMOVAL EFFICIENCY OF PRIORITY POLLUTANTS FROM WASTEWATERS BY SOLVENT EXTRACTION TECHNIQUES.
MANDATE.......: 20-11 DAA FOR WATER PLANNING AND STANDARDS
CURR. RESULTS: SECOND QUARTERLY PROGRESS REPORT RECEIVED ON SCHEDULE
ORDIS CODES...: RECN-005151 SSIE-GMA 6239 EPA -R807027-01 ORD -RL10B30-2079
PE -610
PROJ STATUS...: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT......: OBJECTIVE: TO ESTABLISH CANDIDATE SOLVENTS AND EXPERIMENTAL DATA FOR THE TREATABILITY OF SPECIFIC POLLUTANTS FROM WATER STREAMS. APPROACH: EQUILIBRIUM DISTRIBUTION COEFFICIENTS WILL BE DETERMINED; VARIOUS SOLVENTS WILL BE EVALUATED FOR THE PRIORITY POLLUTANTS TO DETERMINE THE OPTIMUM EXTRACTANT. THE RESULTS WILL BE OF EXTREME USE IN PREPARING EFFLUENT GUIDELINES AND PRETREATMENT STANDARDS FOR BATEA.

·PROJECT: 005190-DEVELOPMENT OF MICROEXTRACTION PROCEDURE TO ANALYZE TOTAL CARBON AND ORGANIC COMPOUNDS FROM DICHOTOMOUS FILTERS
TASK =GC07 -000618 ··EPA=R807028-01 ·· (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 11/80 : FY80

EPA OFFICER.: JE MEEKER EPA/ESRL - RTP FTS 8-629-3064
INVESTIGATOR.: FW KARASEK ARIZONA STATE UNIV TEMPE AZ 85281
ML PARSONS ARIZONA STATE UNIV TEMPE AZ 85281
MILESTONES...: 11/80 -REPORT ON TECHNIQUE FOR EXTRACTION OF ORGANICS FROM DICHOTOMOUS FILTERS
PROGRAM ID...: (PE-C07) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
FINAL OUTPUT.: REPORT ON TECHNIQUE OFR EXTRACTION OF ORGANICS FROM DICHOTOMOUS FILTERS.
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-005190 SSIE-GMA 6118 1 EPA -R807028-01 ORD -RG10B30-1080
LABN-G603A-AC-059 PE -C07
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO DEVELOP AND EVALUATE APPARATUS AND METHODOLOGY TO PROVIDE TOTAL CARBON MEASUREMENTS AND QUALITATIVE AND QUANTITATIVE ANALYSES OF TRACE ORGANIC COMPOUNDS ASSOCIATED WITH AEROSOLS COLLECTED ON DICHOTOMOUS FILTER ELEMENTS. APPROACH: A UNITIZED TEFLON BLOCK APPARATUS WHICH COMBINES SOLVENT EXTRACTION AND CONDENSATION STEPS WITHOUT SAMPLE TRANSFER IS PROPOSED. THE OBJECTIVE IS TO MINIMIZE MULTI-STEP SAMPLE HANDLING. SAMPLE ABSORPTION AND DRASTIC SAMPLE CONDENSATION STEPS. THE DEVICE WILL BE CONSTRUCTED, MODIFIED AND DEVELOPED USING MODEL COMPOUNDS FOR EFFICIENCY STUDIES. RADIOACTIVE TRACERS FOR QUANTITATION OF EXTRACTION SAMPLES, AND FINALLY EVALUATED USING ACTUAL DICHOTOMOUS FILTERS WITH AEROSOLS COLLECTED AT ENVIRONMENTAL SITES FOR PRACTICAL ASSESSMENT. THE PROCEDURE WILL USE ALIQUOTS OF SOLVENT DISPENSED INTO AN EXTRACTION CHAMBER WHERE EXTRACTION WILL BE CONDUCTED IN A HEATED, ULTRASONIC BATH. SUBSEQUENT TRANSFER TO A CONDENSATION CHAMBER WILL BE FOLLOWED BY GC AND GC/MS ANALYSES.

·PROJECT: 005456-DESIGN, MANAGEMENT, AND ANALYSIS OF EXPERIMENTAL DATA
TASK =P882 -000044 ··EPA=R807031 ·· (GRANT)
STARTING/ COMPLETION DATE : 04/79 - 05/82 : FY79

EPA OFFICER.: RR PAYNE EPA/ERL - NARR FTS 8-838-4843
INVESTIGATOR.: LJ BASS UNIV OF RHODE ISLAND DEPT OF MICROBIOL/WOODWARD
JF HELTSHE UNIV OF RHODE ISLAND DEPT OF MICROBIOL/WOODWARD
MILESTONES...: 05/82 -NO FORMAL REPORT REQUIRED
PROGRAM ID...: (PE-882) SCIENTIFIC ASSESSMENT R & D -AIR
MANDATE......: 20-11 DAA FOR WATER PLANNING AND STANDARDS
20-31 DAA FOR TESTING AND EVALUATION
ORDIS CODES..: RECN-005456 SSIE-GMA 6273 EPA -R807031 ORD -RP10E30-2079
PE -892
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO DEVELOP TECHNIQUES FOR DEALING WITH DESIGN OF EXPERIMENTS AND MANAGEMENT AND ANALYSIS OF EXPERIMENTAL DATA RELATING TO THE MARINE ENVIRONMENT. APPROACH: TECHNIQUES ARE TO INCLUDE DESIGN OF FIELD SAMPLING PLANS, LAB EXPERIMENTS, IDENTIFICATION OF APPROPRIATE EXPLORATORY STATISTICAL TECHNIQUES. ALSO INCLUDED WILL BE IMPLEMENTATION OF EPA STANDARD MINICOMPUTER OF INTEGRATED DATA MANAGEMENT AND ANALYSIS SYSTEM USING DATA BASE TECHNIQUES AND EMPLOYING NON-PROCEDURAL USER INTERFACE.

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U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved OMB No. 158-R0081

PROJECT NO.(Do not use this space)

SSIE

EPA R807033 01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

US/USSR exchange of biological control agents

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Huai C. Chiang, Professor, Department of Entomology, Fisheries and Wildlife, University of Minnesota, 2642 University Avenue, St. Paul, MN 55114

NAME AND ADDRESS OF APPLICANT INSTITUTION

Huai C. Chiang, Department of Entomology, Fisheries and Wildlife, University of Minnesota, 2642 University Avenue, St. Paul, MN 55114

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objectives: To exchange biological control agents and technology with USSR, to cooperate with USSR scientists in defining the pheromone blends and in field testing in USSR of material synthesized in US. Approach: Work is to be done under the "Integrated Pest Management" project under the US/USSR Environmental Protection Agreement, involving 24 AES scientists in 16 states specializing in biological control of pests of cotton, deciduous fruits, legumes, vegetables, sunflower, maize, citrus, forest trees and weeds, and in pheromonal control of insects. Work planned: A joint US/USSR Conference on Use of Natural Enemies in Control of Crop Pests. Information exchange. Exploration in USSR for natural enemies of *Dendroctonus* spp. Exchange of natural enemies of pests of above mentioned commodities. Also, field testing of pheromones of codling moth and Oriental fruit moth in several Republics in the USSR. Identification of pheromones of some USSR insects which are close relatives of US pests.

*PROJECT: 005408-DEVELOPMENT OF COLLECTION METHODS FOR AIRBORNE PESTICIDES AND PCB USING SOLID ADSORBENTS
TASK =G712B-BE-004 **EPA=R807048-01 ** (GRANT)
STARTING/ COMPLETION DATE : 09/76 - 06/82 : FY79

EPA OFFICER.: JE MEEKER EPA/ESRL - RTP
INVESTIGATOR.: TF BIDLEMAN UNIV OF SOUTH CAROLINA FTS 8-629-3064 DEPT. OF CHEMISTRY

MILESTONES...: 12/77 -COLLECTION MEDIA, FIELD TESTED
06/79 -COLLECTION MEDIA SELECTED
06/80 -PROTOTYPE SAMPLER COMPLETED
12/80 -EVALUATION OF SAMPLER COMPLETE
06/81 -OPTIMIZATION OF SAMPLER COMPLETED
06/82 -ORD FINAL REPORT, PCB SAMPLER

PROGRAM ID...: (PE-712) CHARAC. & MEASUREMENT METHODS DEVEL - AIR
FINAL OUTPUT.: PCB SAMPLER
MANDATE......: 10-02 CLEAN AIR ACT
CURR. RESULTS: XAD-2 SOLID STATE COLLECTION AGENT INVESTIGATED FOR PCB COLLECTION.
ORDIS CODES..: RECN-005408 SSIE-GMA 6291 EPA -R807048-01 ORD -RG10830-1079
PE -712
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS GRANT IS TO CONTINUE TO SELECT AND TO PERFECT A HIGH VOLUME PORTABLE AIR SAMPLING SYSTEM TO QUANTITATIVELY COLLECT PCBS AND OTHER HALOGENATED HYDROCARBONS. BOTH PARTICULATE AND VAPOR PHASE, AS A FUNCTION OF SEASON, WIND DIRECTION AND FORCE, PRECIPITATION AND SOLAR RADIATION. THE INSTRUMENT IS TO BE BUILT AND FIELD MEASUREMENTS OF PCBS AND OTHER HALOGENATED HYDROCARBONS MADE. APPROACH: AIR SAMPLES ARE SIMULTANEOUSLY COLLECTED WITH A GROUP OF SOLID AND LIQUID PHASE ABSORBANTS TO BE COMPARED. SELECTION CRITERIA FOR AN ABSORBANT SYSTEM INCLUDE: (A) STURDY AND PORTABLE, (B) ABSORBANT EASILY PURIFIED AND STABLE, (C) 90 PLUS PERCENT COLLECTION EFFICIENCY, (D) QUANTITATIVE ELUTION, (E) SMALLEST WORKABLE COLLECTION UNIT, (F) COLLECTED MATERIAL STABLE IN THE ABSORBED STATE.

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Form Approved
OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. (Do not use this space)

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PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA R807051-01

TITLE OF PROJECT

Epidemiologic Studies

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dept. of Epidemiology and Public Health

R.C. Duncan, Project Director	O. Graves, Asst. Professor	J.E. Danauskas, Res. Scient
W.T. Stille, Assoc. Professor	L. Stille, Research Assoc.	G. Roberts, Res. Assoc.
C.D. Pfaffenberger, Assoc. Prof.	S. Brady, Research Assoc.	E.J. Koehler, Com. Health Nurse
A. Barquet, Asst. Professor	R. Lyness, Research Assoc.	
C. Morgade, Asst. Professor		

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Miami
Coral Gables, FL 33124

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objectives (1) To determine on a national basis the magnitude of human exposure to pesticides by monitoring residues and metabolites of pesticides in the general and/or specific populations. (2) To conduct epidemiologic studies of various exposed population groups and to seek information on the potential effects of these exposures on the induction of disease. (3) To devise better means for the recognition, diagnosis, and treatment of pesticide poisoning in man. (4) To maintain a central data management facility and information processing system in support of the Pesticide Incident Monitoring Center.

Approach: The Department of Epidemiology and Public Health of the University of Miami School of Medicine has assembled a staff of medical epidemiologists, pesticide residue chemists, information scientists, and biostatisticians to carry out fundamental research and field investigations to meet the general objectives stated above. The combination of documented (chemical) exposure assessment and the application of sound epidemiological principles are being used to carry out this mission.

Current: Plans/ Progress Analytical (Chemical)methods development, field studies of exposed workers in agriculture, acute pesticide poisoning investigations, and the accumulation and dissemination of pesticides information (PIMS, RPAR, Generic Standards) are continuing.

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OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. (Do not use this space)
SSIE
EPA R 807053-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Natural Organic Emissions and Their Impact on Air Quality

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Mike Holdren, Assistant Chemist
Air Pollution Research
College of Engineering
Washington State University, Pullman, WA 99164

NAME AND ADDRESS OF APPLICANT INSTITUTION

Washington State University
Pullman, WA 99164

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

This research program is designed to determine the emission rates of organic material from indigenous species of vegetation in the State of Pennsylvania. The information obtained will provide natural hydrocarbon data needed to verify a regional scale photochemical air quality simulation model that will be incorporated into the Northeast Regional Oxidant Study Program (NEROS) during the summers of 1979 and 1980.

Specific objectives include:

1) To measure tree emission rates by a bag enclosure method.
2) To measure the leaf oil and wood olearesin composition of each tree specie sampled by the bag enclosure.
3) To measure the ^{14}C content of ambient aerosols and determine the percentage of contribution of natural organic carbon to the total carbon burden.

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*PROJECT: 005147-NATIONAL ESTIMATE OF THE COST OF CONTROLLING AGRICULTURAL POLLUTION

                    TASK =KC34 -000479 **EPA=R807054-01  ** (GRANT)
                    STARTING/ COMPLETION DATE : 07/79 - 09/80 :   FY80
  EPA  OFFICER.: TE WADDELL               EPA/ERL - ATHENS                FTS-8-250-3560
  INVESTIGATOR.: H  PESKIN                RES FOR THE FUTURE INC          WASHINGTON          DC 20036
                 L  GIANESSI              RES FOR THE FUTURE INC          WASHINGTON          DC 20036
                 D  BASTA                 RES FOR THE FUTURE INC          WASHINGTON          DC 20036
  MILESTONES...: 09/79 -DEVELOPMENT OF WORK PLAN
                 12/79 -DRAFT FINAL REPORT ON NATIONAL COST ESTIMATES
                 02/80 -DRAFT FINAL REPORT ON LINKAGE WITH EPA REACH FILE
  PROGRAM ID...: (PE-C34 )          RENEWABLE RESOURCES -WATER QUALITY
  MANDATE......: 20-11      DAA FOR WATER PLANNING AND STANDARDS
  CURR. RESULTS: INPUT DATA FILES HAVE BEEN UPDATED WITH SCS AND OTHER USDA DATA
                 A REPORT HAS BEEN DEV. FOR EPA IN WHICH ANALYSIS IS MADE OF
                 THE WATER QUALITY IMPACTS OF IMPLEMENTING BPT.
  ORDIS CODES..: RECN-005147          SSIE-GMA  6245 1      EPA -R807054-01       ORD -RK10B30-2080
                 PE  -C34
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO REFINE, UPDATE, AND UTILIZE THE RFF WATER NETWORK MODEL IN EVALUATING THE NATIONAL
                  COSTS AND WATER QUALITY IMPACTS OF IMPLEMENTING AGRICULTURAL NONPOINT SOURCE CONTROLS ACROSS THE
                  U.S. IRRIGATED AND NONIRRIGATED AGRICULTURAL PRODUCTION AND ANIMAL PRODUCTION ACTIVITIES WILL BE
                  CONSIDERED. THE COMPATIBILITY OF THE RFF MODEL AND DATA BASE WITH THE EPA REACH FILE WILL ALSO BE
                  EVALUATED. APPROACH: THE RFF MODEL WILL UTILIZE A BMP SELECTION METHODOLOGY BEING DEVELOPED BY
                  CORNELL UNIVERSITY (GRANT NO. R804925) TO EVALUATE ALTERNATIVE AGRICULTURAL NONPOINT BMPS RELATIVE
                  TO THEIR ENVIRONMENTAL AND COST EFFECTIVENESS. RFF WILL APPLY THE METHODOLOGY ON A NATIONWIDE
                  BASIS.

*PROJECT: 005927-AMMONIA REMOVAL FROM STEEL INDUSTRY WASTEWATER

                    TASK =F610B-793670 **EPA=R807064     ** (GRANT)
                    STARTING/ COMPLETION DATE : 09/79 - 04/80 :   FY79
  EPA  OFFICER.: JS RUPPERSBERGE          EPA/IERL - RTP                  919-541-2733
  INVESTIGATOR.: FB BIRKNER               UNIV OF MARYLAND                DEPT OF COMP SCI
  PROGRAM ID...: (PE-610 )          INDUSTRIAL PROC. - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005927          SSIE-GMA  6483        EPA -R807064          ORD -RF10B30-1079
                 PE  -610
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 06-28-80    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DEVELOP A SUITABLE FILTER MEDIA FOR THE REMOVAL OF AMMONIA FROM STEEL INDUSTRY
                  WASTEWATERS AND TO DEMONSTRATE ITS EFFECTIVENESS ON A LABORATORY SCALE.
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U.S. ENVIRONMENTAL PROTECTION AGENCY

Form Approved
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PROJECT NO. (Do not use this space)

SSIE

EPA CR 807060-01-0

NOTICE OF RESEARCH PROJECT

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

CROP PRODUCTION SYSTEMS: THE ROLE OF PLANT PROTECTION FROM PESTS

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Raymond J. Tarleton, Treasurer
The Intersociety Consortium for Plant Protection

NAME AND ADDRESS OF APPLICANT INSTITUTION

INTERSOCIETY CONSORTIUM FOR PLANT PROTECTION
3340 Pilot Knob Road, St. Paul, MN 55121

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

(1) Objectives: To provide information to OPP and ORD on the role of specific RPAR presticides in integrated pest management. To describe in detail the current state of two U.S. crop production systems (field corn and peaches), with special emphasis on comparison of existing plant protection procedures, proposed alternate systems, potential impacts of OPP and ORD activities, and recommendations for research and extension priorities.

(2) Approach: A project manager will be appointed to coordinate the objectives. Production-system-analysis task forces will be appointed for analysis of the field corn and peach documents. The task forces will consist of a representative from each of the four plant protection disciplines (entomology, nematology, plant pathology, and weed science), a crop production specialist, a systems scientist and an economist. Ad hoc committees will be established as mutually agreeable. Relevant EPA and USDA RPAR data will be used by the Ad hoc committees.

(3) Current Plans and/or Progress: The project will be implemented as soon as the contract is approved. ISCPP is currently identifying appropriate expertise.

*PROJECT: 006662-HERPES SIMPLEX VIRUS TYPE 2 - CANCER PROMOTER INTERACTIONS

TASK =HC1T -989500 **EPA=R807073 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 08/82 : FY80

EPA OFFICER.: SELGRADE EPA/HERL - PTP 629-2539
INVESTIGATOR.: UNKNOWN BOWMAN GRAY SCHOOL OF MED
MILESTONES...: 06/81 -COMPLETE PROMOTOR EFFECTS ON TUMORIGENESIS.
10/81 -COMPLETE TESTS ON POTENTIATION OF LATENT VIRUS.
09/82 -COMPLETE BIOCHEMICAL ANALYSIS OF TRANSFORMED CELLS
09/82 -DEVELOP SYSTEM FOR TESTING SUSPECT PROMOTORS.
09/82 -FINAL REPORT
PROGRAM ID...: (PE-C1T) HEALTH EFFECTS - TOXICS
MANDATE......: 10-03 TOXIC SUBSTANCES CONTROL ACT
ORDIS CODES..: RECN-006662 SSIE-HZ 809895 EPA -R807073 ORD -RH10B30-1080
PE -C1T
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: ACUTE HERPES SIMPLEX VIRUS (HSV-2) INFECTION IS ALWAYS FOLLOWED BY LATENT INFECTION. UOMEN WITH A HISTORY OF GENITAL HSV-2 INFECTION HAVE A 4X HIGHER RISK OF CERVICAL CARCINOMA. THE TIME BETWEEN HSV-2 ONSET AND CARCINOMA DEVELOPMENT IS 15-20 XRS SUGGESTING THIS CANCER MAY OCCUR IN 2 STAGES-INITIATION BY HSV-2 FOLLOWED BY REPEATED EXPOSURE TO SOME ENVIRONMENTAL FACTOR WHICH SERVES AS A PROMOTOR. THIS TASK PROVIDES A WAY OF SUPPORTING THIS HYPOTHESIS AND IDENTIFYING PROMOTORS, BY DETERMINING IF CHEMICALS KNOWN TO PROMOTE CHEMICAL CARCINOGENESIS ALSO ENHANCE THE TUMORIGENICITY OF HSV-2-TRANSFORMED CELLS AND IDENTIFYING IN VITRO PARAMETERS WHICH SIGNAL SUCH ENHANCEMENT. THE AVAILABLE HSV-2 TRANSFORMED CELLS VARY FROM NONTUMORIGENIC TO HIGHLY TUMORIGENIC AND PROVIDE A GOOD MODEL FOR EXAMINING VIRUS/CHEMICAL INTERACTION. TRANSIENT EXPOSURE OF HSV-2 TRANSFORMED RAT EMBRYO CELLS TO THE CO-CARCINOGEN (PROMOTOR) 12-OTETRADECANOYL-PHORBOL-13-ACETATE (TPA) MARKEDLY ENHANCED THE TUMORIGENIC POTENTIAL OF HSV-2 TRANSFORMED CELLS FOR NEWBORN RATS AND THIS ENHANCED TUMORIGENICITY CORRELATED WITH ENHANCED EFFICIENCY OF COLONY FORMATION IN SOFT AGAR. WHEN THESE VIRUS TRANSFORMED CELLS WERE TREATED WITH TPA THE EFFICIENCY OF COLONY FORMATION INCREASED FROM 3% FOR UNTREATED CELLS TO 7, 9 AND 45% FOR CELLS TREATED WITH 20, 200, OR 2000 NG TPA/ML. THE EFFICIENCY OF COLONY FORMATION FOR RAT EMERYO CELLS NOT TRANSFORMED WITH HSV WAS LESS THAN 0.01% WHETHER THEY WERE TPA TREATED OR NOT. CELL LINES ESTABLISHED FROM THESE TPA-TREATED, HSV-TRANSFORMED CELLS ALSO EXHIBITED ENHANCED COLONY FORMATION (65-75%) COMPARED TO CELL LINES DERIVED FROM UNTREATED CELLS (12%) AND PRODUCED 100% INCIDENCE OF TUMORS IN NEWBORN RATS WHEREAS UNTREATED CELLS WERE NON-TUMORIGENIC. OTHER RESULTS INDICATE THAT SATURATION DENSITY OF CELLS WAS NOT ALTERED BY TPA TREATMENT. STUDIES ARE NOW UNDERWAY TO DETERMINE IF TPA ALTERS OTHER PHENOTYPIC MARKERS WHICH CAN THEN BE CORRELATED WITH ENHANCED TUMORIGENICITY.

*PROJECT: 006048-ENGINEERING EVALUATION OF HIGH VELOCITY FILTRATION

TASK =F830M-791100 **EPA=R807080 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 08/82 : FY79

EPA OFFICER.: JH TURNER — EPA/IERL - RTP — FTS 8-629-2476
INVESTIGATOR.: MW FIRST — HARVARD UNIV — PUBLIC HEALTH/PHYS DEPT
PROGRAM ID...: (PE-830) FLUE GAS PARTICULATE CONTROL -ENERGY
MANDATE......: 10-02 CLEAN AIR ACT
ORDIS CODES..: RECN-006048 SSIE-GMA 6492 EPA -R807080 ORD -RF10B30-1079
PE -830
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO REDUCE SIZE AND COST OF FABRIC FILTERS, AND TO INCREASE THEORETICAL UNDERSTANDING OF FABRIC FILTRATION. APPROACH: DATA GATHERED WILL BE USED BY FABRIC FILTRATION RESEARCHERS, DESIGNERS, AND ENFORCEMENT PERSONNEL.

*PROJECT: 005812-EVALUATION & DEMONSTRATION OF MICROPROCESSOR CONTROL FOR VOC EMISSIONS REDUCTION

TASK =B604 -000949 **EPA=R807083 ** (GRANT)
STARTING/ COMPLETION DATE : 08/73 - 08/81 : FY79

EPA OFFICER.: CH DARVIN — EPA/IERL - CINC — FTS 8-684-4491
INVESTIGATOR.: M HEUERTZ — CHEMICAL COATERS ASSN. — WHEATON — IL 60187
PROGRAM ID...: (PE-604) INDUSTRIAL PROC. - AIR
CURR. RESULTS: THE OUTPUT OF THIS PROJECT WILL BE A DEMONSTRATION AND REPORT REPORT ON MICROPROCESSOR CONTROL OF A VOC EMITTING SOURCE INCLUDED ALSO AS AN OUTPUT WILL BE A TECHNICAL DESIGN MANUAL DESIGN ON THE USE AND IMPLEMENTATION OF MICROPROCESSER TECHNOLOGY FOR ENERGY CONVERSATION AND VOC POLLUTION REDUCTION FROM METAL COATING PROCESSES.
ORDIS CODES..: RECN-005812 SSIE-GMA 6635 EPA -R807083 ORD -RB10B30-3079
PE -604
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THIS PROJECT WILL DEMONSTRATE THE USE OF MICROPROCESSOR TO CONTROL VOC EMISSIONS AND CONSERVE PROCESS ENERGY. WITH INSTANTANEOUS PROCESS CONTROL, OPERATION CLOSER TO THE LEL WILL OCCUR, THUS REDUCING DILUTION AIR AND REDUCING ENERGY REQUIREMENTS FOR THE PROCESS AND FOR INCINERATION. SUCCESSFUL DEMONSTRATION OF THE USE OF MICROPROCESSORS WILL RESULT IN A CONTROL OPTION THAT IS BOTH EFFICIENT AND ECONOMICAL, MAKING THE USE OF HEAT RECOVERY MUCH MORE EFFICIENT AND ATTRACTIVE. APPROACH: DESIGN, DEVELOPMENT AND OPERATION OF APPLICABLE COMPUTER TECHNOLOGY WILL BE CONDUCTED. AN OPERATIONAL FACILITY WILL THEN BE USED AS A HOST SITE TO DEMONSTRATE THE TOTAL CONTROL CONCEPT.

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*PROJECT: 005148-EFFECT OF AGRICULTURAL LAND USE PRACTICES ON STREAM WATER QUALITY
                 (ECONOMIC ANALYSIS)
                  TASK =KC34 -000482 **EPA=R807087-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 12/81 :   FY80
  EPA  OFFICER.: TE WADDELL                EPA/ERL - ATHENS                FTS 8-250-3560
  INVESTIGATOR.: J  MIRANOWSKI             IOWA STATE UNIV                 AMES                   IA 50011
  MILESTONES...: 10/79 -WATER QUALITY GOALS WORKSHOP
                 11/79 -DETAILED WORK PLAN--DATA COLLECTION, TIMIMG OF TASKS
                 01/80 -REPORT ON WATER QUALITY GOALS WORKSHOP
                 12/80 -INTERIM REPORT ON METHODOLOGY
                 12/81 -FINAL REPORT ON RESULTS - PHASE I
  PROGRAM ID...: (PE-C34 )           RENEWABLE RESOURCES -WATER QUALITY
  MANDATE......: 20-11     DAA FOR WATER PLANNING AND STANDARDS
                 20-R07    EPA REGION VII
  CURR. RESULTS: DATA COLLECTION ACTIVITIES HAVE BEEN INSTITUTED IN CONJUCTION
                 WITH SOCIOLOGISTS WATER QUALITY GOALS WORKSHOP WAS HELD
                 IN ANES,IOW 9-10 JAN.80
  ORDIS CODES..: RECN-005148        SSIE-GMA  6244 1      EPA -R807087-01      ORD -RK10B30-2080
                 PE  -C34
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED         ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: PROJECT IS A COMPONENT OF THE IOWA FIELD EVALUATION PROJECT (FEP) TO CONDUCT RESEARCH ON
                  THE ECONOMIC IMPACTS OF ALTERNATIVE AGRICULTURAL BMPS AND IMPLEMENTATION POLICIES DESIGNED TO
                  ACHIEVE VARIOUS LEVELS OF WATER QUALITY. THE ECONOMIC ANALYSIS WILL: 1) ASSESS THE ECONOMICS OF
                  ALTERNATIVE SETS OF BMPS AT THE FARM, WATERSHED, AND RIVER BASIN LEVELS; 2) DEVELOP AND ADAPT
                  PROGRAMMING MODELS TO THE STUDY AREA TO EVALUATE ALTERNATIVES; 3) LINK ECONOMIC AND PHYSICAL
                  MODELS; AND 4) EVALUATE TRADE-OFFS. APPROACH: ACCOMPLISHMENT OF THESE OBJECTIVES WILL REQUIRE
                  SIGNIFICANT DATA COLLECTION ACTIVITIES, UTILIZATION OF QUANTITATIVE ESTIMATION TECHNIQUES, MODEL
                  DESIGN AND PROGRAMMING EFFORTS, AND DETAILED INTERPRETATION OF THE ANALYTICAL RESULTS.


*PROJECT: 005206-OPTICAL SIZING OF SUB-MICRON PARTICLES

                  TASK =G832B-EA-212 **EPA=R807089-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 11/81 :   FY79
  EPA  OFFICER.: CW LEWIS                  EPA/ESRL - RTP                  FTS 8-629-3154
  INVESTIGATOR.: JT BROWN                  COLORADO SCHOOL OF MINES        DEPT. OF PHYSICS
  MILESTONES...: 11/81 -DELIVERY OF INSTRUMENTATION
  PROGRAM ID...: (PE-832 )           TRANSPORTATION & FATE- ENERGY
  MANDATE......: 10-02     CLEAN AIR ACT
  ORDIS CODES..: RECN-005206        SSIE-GMA  6197        EPA -R807089-01      ORD -RG10B31-1079
                 PE  -832
  PROJ STATUS..: PROJECT-ACTIVE        INFO-ORIGINAL        ENTERED - UNKNOWN     UPDATED-  OCT-DEC 79
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: INCREASE THE SMALL PARTICLE SENSITIVITY OF A CLIMET OPTICAL PARTICLE COUNTER. APPROACH: A
                  SERIES OF HARDWARE MODIFICATIONS TO A CLIMET OPTICAL PARTICLE COUNTER WILL BE PERFORMED AND
                  EVALUATED WITH REGARD TO THE EFFECT OF EACH ON THE INSTRUMENT'S SMALL PARTICLE SENSITIVITY.
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254.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

Form Approved
OMB No. 158-R0081

PROJECT NO.(Do not use this space)
SSIE 807090-01
EPA

TITLE OF PROJECT

Support for PL 480 Project, Water Quality Studies on the River Nile and Lake Nasser.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Project Director: Dr. K. H. Mancy, Professor of Environmental Chemistry. The Department of Environmental and Industrial Health, School of Public Health, The University of Michigan.

NAME AND ADDRESS OF APPLICANT INSTITUTION

2530 School of Public Health I
The University of Michigan
Ann Arbor, Michigan 48109

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The main goal of this study is the assessment of current and future water quality characteristics of the Nile in Egypt. Emphasis is on the environmental impacts of the Aswan High Dam, river flow control programs and multi-purpose river usages. This includes public health, agricultural and socioeconomic implications. The overall aim is to provide the policy and decision makers in Egypt with factual information on present conditions, predictions of future trends and strategy alternatives for lake and river resources management.

The focus of this project has been the impacts on water quality and river ecosystem in the Aswan High Dam Reservoir and the downstream portion of the Nile. These impacts are measured in terms of their physical, chemical and biological parameters. The human implication of these impacts are examined in terms of their agricultural, public health and socioeconomic effects. The operational output of the study is an extensive monitoring network and an environmental information and retrieval system as well as technical training associated with carrying out of these chemical and biological measurements and, the use of advanced pollution detection equipment, and the application of modeling and system techniques.

ROJECT: 005132-INJURY AND IMPROVED RECOVERY OF FECAL COLIFORM BACTERIA IN DRINKING WATER
TASK =CC61 -S2T055 **EPA=R807092-01 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 10/82 : FY80

EPA OFFICER..: DJ REASONER EPA/MERL - CINC FTS 8-684-7232
INVESTIGATOR.: GA MCFETERS MONTANA STATE UNIV DEPT OF BIOL
MILESTONES...: 09/80 -INTERIM PROGRESS REPORT LST YEAR
09/81 -INTERIM PROGRESS REPORT, 2ND YEAR
PROGRAM ID...: (PE-C61) DRINK WATER TREATMENT & GROUND WATER PROT
MANDATE......: 10-15 SAFE DRINKING WATER ACT
CURR. RESULTS: WATER EXPOSURE INJURY STUDIES HAVE BEGUN SUITABLE TYPES OF WATER FOR EXPOSURE HAVE BEEN IDENTIFIED AND INCLUDED CHLORINATED TAP WATER DEAD END TAP WATER AND DECHLORINATED TAP WATER AFTER CARBON FILTRATION THE EXPERIMENTAL EXPOSURE PROTOCAL HAS BEEN ESTABLISHED AS WELLAS REPRODUCIBLE TESTS FOR INJURY NEW SELECTIVE AND NONSELECTIVE MEDIA HAVE BEEN DEVELOPED TO DETECT INJURY IN COLIFORM VACTERIA. METOBOLIC INJURY IN CALIFORMS IS DETECTED USINGA MINIMAL MEDIUM.
ORDIS CODES..: RECN-005132 SSIE-GMA 6236 1 EPA -R807092-01 ORD -RC10830-1080
PE -C61
PROJ STATUS..: ACTIVE -MULTIYEAR, INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: TO STUDY THE OCCURRENCE OF STRESSED INDICATOR BACTERIA IN POTABLE WATER AND THE RELATIONSHIP BETWEEN VARIOUS PHYSICAL, CHEMICAL AND BIOLOGICAL FACTORS, AND STRESS INJURY RELATIVE TO RECOVERY OF INJURED COLIFORMS IN POTABLE WATER. THE PROJECT WILL ALSO ADDRESS THE DEVELOPMENT OF IMPROVED RECOVERY MEDIA AND PROCEDURES FOR INJURED COLIFORMS IN DRINKING WATER. APPROACH: USING MORE RECENT INFORMATION CONCERNING THE CELLULAR SITE OF STRESS INJURY IN BACTERIA, FURTHER RESEARCH WILL BE DIRECTED TOWARD DEFINING OTHER MECHANISMS OF STRESS INJURY AND EXAMINATION OF MEDIUM COMPONENTS OR ADDITIVES THAT PREVENT OR REVERSE THE STRESS INJURY. MEDIUM ADDITIVES WILL BE EXAMINED THAT SHOW SELECTIVE INHIBITIONS OR SUPPRESSION OF NON-COLIFORM BACTERIA WHILE PERMITTING THE COLIFORM BACTERIA TO GROW. METHODOLOGY DEVELOPED WILL BE USED TO EXAMINE THE OCCURRENCE OF STRESS INJURED COLIFORMS IN POTABLE WATER SUPPLIES.

255.1

U.S. ENVIRONMENTAL OTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
CR 807101-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA

TITLE OF PROJECT Pesticide cooperative agreement for laboratory and field evaluation of alternates for fire ant control.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

C. M. Ueltschey, Director, Fire Ant Division, Mississippi Department of Agriculture
Dr. Mingming Fang, Research Scientist
Dr. Earl Alley, Director of Research, Mississippi Chemical Laboratory

NAME AND ADDRESS OF APPLICANT INSTITUTION

Mississippi Department of Agriculture & Commerce
P. O. Box 1609
Jackson, Mississippi 39205

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objective: To find a pesticide to control Imported Fire Ant.

Approach: Acceptance test and screening in laboratory - small and intermediate field plots.

Current plans are to screen at least 40 compounds a week for efficacy and 80 compounds per week for acceptance.

255.

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

PROJECT NO. (Do not use this space)

SSIE

EPA R 807103-01

TITLE OF PROJECT: Urban and Suburban Residential Pest Management Data Systems

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

William Olkowski, Co-Principal Investigator, Co-Director, Center for the Integration of Applied Sciences

Helga Olkowski, Co-Principal Investigator, Co-Director, Center for the Integration of Applied Sciences

NAME AND ADDRESS OF APPLICANT INSTITUTION

John Muir Institute for Environmental Studies, Inc.
743 Wilson Street
Napa, CA 94558

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

This proposal encompasses four subprojects which build on previous studies funded by EPA and others. Subproject I will develop a computer-accessible information data base for implementation of shade tree pest IPM programs throughout the U.S. Subproject II will develop a computer-accessible information data base for the pest problems that occur in and around suburban residences. Subproject III will develop a framework for an information system based on a series of generalizable IPM components, applicable to all pest situations but immediately useful with the above data bases. Subproject IV will further evaluate the introduced parasites of the elm leaf beetle, the linden aphid, and the elm aphid, and the potential introduction of parasites of the silver maple aphid and/or the tulip tree aphid.

255.3

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved OMB No. 158-R0081

PROJECT NO. (Do not use this space) R-807105-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT: Analyses of Costs and Benefits of the Use of Pesticides on Crop and Non-crop Sites in Arizona

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Dennis C. Cory, Assistant Professor, Dept. of Agr.Econ., Univ. of Arizona

Dr. Roger A. Selley, Assistant Professor, Dept. of Agr.Econ., Univ. of Arizona

Dr. James C. Wade, Assistant Professor, Dept., of Agr.Econ., Univ. of Arizona

NAME AND ADDRESS OF APPLICANT INSTITUTION

Department of Agricultural Economics; 401 Agriculture Bldg.; University of Arizona; Tucson, Arizona 85721.

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

This research project consists of two types of tasks. Task type I is concerned with conducting economic analyses of proposed regulatory actions on specific problem pesticides (RPAR's) on use sites in Arizona. Task type II is concerned with conducting baseline analyses of the benefits and costs of the control of the economic pests by chemical and non-chemical means on a site without reference to a specific regulatory action.

Nonlinear programming models will be used to estimate income impacts on representative farms from various regulatory proposals. Policy evaluation will be conducted within an externality theoretic framework, considering the implications for financial risk, allocative efficiency, and distributive equity of regulatory actions.

255.4

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO.(Do not use this space)
SSIE R807106-01
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT: Pesticide Benefit-Cost Analysis on Crop and Non-Crop Sites in Mississippi and Other States

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

David W. Parvin, Jr., Professor & Economist
Department of Agricultural Economics, MAFES

Arnold L. Aspelin, Chief
Economic Analysis Branch, EPA

NAME AND ADDRESS OF APPLICANT INSTITUTION

Mississippi Agricultural & Forestry Experiment Station, MSU
Box 5187, Mississippi State, MS 39762

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The purpose of this project is to provide the participants (Office of Pesticides, EPA and MSU) with analyses of costs and benefits of the use of pesticides on crop and non-crop sites in Mississippi and other states. Such analyses are needed as inputs to risk/benefit regulatory decisions on problem pesticides which could affect the economy of Mississippi and other states.

First year tasks to be completed include: conduct economic analysis of proposed regulatory actions on specific problem pesticides (RPAR's) on use sites (Eastern cotton, rice, cucurbits/mellons, poultry, catfish, and mosquito control) in Mississippi and other states; conduct baseline analyses of the benefits and the costs of the control of the economic pests by chemical and non-chemical means on cotton and rice sites without reference to a specific regulatory action pending at EPA; conduct reviews of data and analyses generated by other parties concerning benefits and costs of the use of one or more pesticides on a specified site in connection with an EPA regulatory action, actual or proposed; conduct data gathering and/or information retrieval activities relating to pesticides benefit or economic impact analyses.

255.5

U.S. ENVIRONMENTAL PROTECTION AGENCY

Form Approved
OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

PROJECT NO. (Do not use this space)
SSIE
EPA CR 807107-01

TITLE OF PROJECT Analysis of the Costs and Benefits of the Use of Pesticides on Crop and Non-Crop Sites in Virginia and Other States

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Kenneth H. Baum, Assistant Professor, Dept. of Agricultural Economics
Ronald W. Tillman, Assistant Professor, Dept. of Plant Pathology & Physiology
Robert L. Horsburgh, Associate Professor, Dept. of Entomology
Charles R. Drake, Professor, Dept. of Plant Pathology & Physiology

NAME AND ADDRESS OF APPLICANT INSTITUTION

Research Division, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The purpose of the proposed work effort contained in this research project is to provide the Office of Pesticides, EPA (OPP/EPA) and Virginia Polytechnic Institute and State University (VPI&SU) with analyses or review of analyses concerning costs and benefits of pesticides use on crop and non-crop sites in Virginia and other states. A team of agricultural economists, entomologists, and plant pathologists in residence at VPI&SU will conduct these evaluations with data provided by the OPP/EPA, or data available elsewhere, utilizing appropriate statistical and analytical techniques. Primary work projects include (1) economic analyses of proposed pesticide regulatory actions affecting Eastern fruits, vegetables, and tobacco and (2) initiation of baseline analyses of benefits and costs of alternative principal pest control strategies used within the Virginia and Appalachian Apple Industries. In addition, a review of pesticide or pest control data and analyses, and data gathering activities will be undertaken when necessary. These reviews and analyses derive their importance as inputs to risk/benefit regulatory decisions either in review or under consideration on problem pesticides that could affect the economy of Virginia and other states.

55.6

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R807108-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Health Effects of Air Pollution In The Texas Gulf Coast Area

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Patricia A. Buffler, Ph.D., University of Texas School of Public Health, Associate Professor of Epidemiology; Reuel Stallones, M.D., University of Texas School of Public Health, Dean; Susan M. Wood, M.A., University of Texas School of Public Health, Senior Research Associate; (See attached page for other investigators)

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Texas Health Science Center at Houston
School of Public Health
P.O. Box 20186
Houston, Texas 77025

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

In order to access the biomedical consequences of exposure to air pollution in the Texas Gulf Coast Area, three epidemiologic studies are proposed:

(1) a two-phase study of environmental influences on lung cancer production in Harris County, where the city of Houston is located;

(2) a longitudinal assessment of the degree to which daily variation in air pollution concentrations influences daily symptomatology and lung function in asthmatics; and

(3) a longitudinal assessment of the degree to which air pollution concentrations shortly preceding and during exercise influence performance, physiology, and symptomatology in vigorously exercising healthy people.

This group of studies has been selected to achieve balance in four respects: 1)the studies will assess the influence of short-term, daily and chronic exposures, 2) the studies will consider a spectrum of health outcomes, 3) the studies consider variables ranging from those which could reflect an existing air pollution effect whose biological significance is difficult to quantify to those which may be difficult to associate with pollution exposure, but whose biological significance is unequivocal, and 4) all the studies are designed to address specific biomedical environmental aspects of the Texas Gulf Coast Area and to yield results which can be directly compared to other studies in the Southern California Area.

These investigations will be a collaborative effort of the University of Texas School of Public Health and the Population Studies Division of the Environmental Protection Agency. The study design specification for each investigation will be determined collaboratively during the first months of each study.

·PROJECT: 005452-EPA MUSSEL WATCH GRANTS

TASK =P775 -000040 ··EPA=R807110 ·· (GRANT)
STARTING/ COMPLETION DATE : 11/79 - 10/82 : FY79

EPA OFFICER.: DK PHELPS EPA/ERL - NARR FTS 8-838-4843
INVESTIGATOR.: JH MARTIN CALIFORNIA STATE UNIV MOSS LANDING MARIJE LAB.
MILESTONES...: 10/82 -FINAL REPORT
PROGRAM ID...: (PE-775) ANTICIPATORY R & D
MANDATE......: 30-99 MARINE ECOLOGY
ORDIS CODES..: RECN-005452 SSIE-GMA 6271 EPA -R807110 ORD -RP10B30-3079
PE -775
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THE PROPOSED RESEARCH IS TO MONITOR TRACE METALS IN TRANSPLANTED MUSSELS AND THEIR EXPOSURE WATER AROUND SAN FRANCISCO BAY. APPROACH: IT WILL ADDRESS THE QUESTION OF A CORELATION BETWEEN THE LEVELS OF THOSE HEAVY METALS IN THE TRANSPLANTED MUSSELS AND THE LEVELS MEASURED IN SEAWATER AT THE TRANSPLANTED SITES. ADDITIONALLY, DEVELOPMENT OF METHODS FOR THE ANALYSIS OF SILVER IN SEAWATER AND INTERCALIBRATION WITH OTHER SCIENTISTS ON LEVELS OF VARIOUS OTHER METALS IN MUSSSEL TISSUE WILL BE UNDERTAKEN.

•PROJECT: 004986-WATER QUALITY STUDIES ON THE RIVER NILE AND LAKE NASSER

TASK =KC28 -79-058 ••EPA=R807114 •• (GRANT)
STARTING/ COMPLETION DATE : 11/79 - 10/81 : FY80

EPA OFFICER..: WM SANDERS EPA/ERL - ATHENS FTS-8-250-3171
INVESTIGATOR..: KH MANCY UNIV OF MICHIGAN SCH OF PUBLIC HEALTH
MILESTONES....: 10/80 -ANNUAL REPORT
10/81 -FINAL REPORT
PROGRAM ID....: (PE-C28) TRANS. AND FATE - WATER QUALITY
MANDATE.......: 20-99 L 480 PROJECT - EGYPT
CURR. RESULTS: DRAFT FIVE-YEAR SUMMARY REPORT WAS RECEIVED AND REVIEWED. FINAL REPORT ENTITLED "HUMAN INTESTINAL PARASITIC INFECTIONS AND ENVIRONMENTAL HEALTH FACTORS IN RURAL EGYPTIAN COMMUNITIES" WAS SENT TO PRINTER.
ORDIS CODES..: RECN-004986 SSIE-GMA 6061 1 EPA -R807114 ORD -RK10B30-2080
LABN-K609A-79-058 PE -C28
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- OCT-DEC 79
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: 1) DEVELOP AND MAINTAIN AN AUTOMATED DATA STORAGE AND RETRIEVAL CENTER; 2) DEVELOP A PHYSICAL, CHEMICAL AND BIOLOGICAL DATA BASE ON LAKE NASSER AND PROJECT MANAGEMENT ALTERNATIVES; 3) DEVELOP A PHYSICAL, CHEMICAL AND BIOLOGICAL DATA BASE FOR RIVER NILE AND PROJECT MANAGEMENT ALTERNATIVES; 4) DETERMINE IMPACT OF ASWAN HIGH DAM CONSTRUCTION ON RURAL PUBLIC HEALTH, ESPECIALLY ON PARASITIC DISEASES; 5) DETERMINE SOCIO-ECONOMIC IMPACT OF DAM CONSTRUCTION AND ON VARIOUS MANAGEMENT ALTERNATIVES; 6) DETERMINE IMPACT OF DAM CONSTRUCTION AND OPERATION ON AGRICULTURE IN TERMS OF INFLUENT AND EFFLUENT WATER QUALITY FOR IRRIGATED AREAS; 7) LEAVE IN PLACE A PERMANENT EGYPTIAN INSTITUTION TO CONTINUE MONITORING AND ASSESSMENT ACTIVITIES. APPROACH: PROJECT SERVES AS A CONTINUING NUCLEUS BY USING PROJECT RESOURCES AS SEED MONIES TO INVOLVE OTHER EGYPTIAN MINISTRIES, CENTERS, INSTITUTES AND UNIVERSITIES TO ACCOMPLISH THE STATED OBJECTIVES. INITIALLY, A LARGE MONITORING PROGRAM WAS INSTITUTED TO DETERMINE CURRENT CONDITIONS. DATA ARE BEING USED TO CALIBRATE MULTIMANAGEMENT ALTERNATIVES.

*PROJECT: 005146-STOCHASTIC DIFFERENTIAL TECHNIQUES FOR SPECIFIC POLLUTANT WATER QUALITY MODELLING
TASK =KC1V -79-450 **EPA=R807114-02 ** (GRANT)
STARTING/ COMPLETION DATE : 08/79 - 10/80 : FY80

EPA OFFICER..: JW FALCO EPA/ERL - ATHENS FTS 8-250-3138
INVESTIGATOR.: WF AMES GEORGIA INST OF TECH SCHOOL OF MATHEMATICS
MILESTONES...: 10/80 -PUBLISH FINAL REPORT OF SOLUTION TO EQUATIONS FOR CHANGE FOR POLLUTANTS
PROGRAM ID...: (PE-C1V) TRANSPORT AND FATE - TOXICS
MANDATE......: 10-03 TOXIC SUBSTANCES CONTROL ACT
CURR. RESULTS: FOUR NONLINEAR MODELS WERE DEVELOPED WHICH DESCRIBE DEGRADATION AND TRANSPORT OF ORGANIC POLLUTANTS IN RIVERS FOR BOUNDARY AND INITIAL CONDITIONS WHICH LEAD TO TRAVELLING WAVE SOLUTIONS FOR MODELS WHICH DESCRIBE DEGRADATION AND BACTERIAL GROWTH AS SECOND ORDER RATE PROCESSES. AN APPROXIMATE SOLUTION TO DIFFERENTIAL EQUATIONS WERE OBTAINED BY PERTURBATION ANALYSIS.
ORDIS CODES..: RECN-005146 SSIE-GMA 6240 1 EPA -R807114-02 ORD -RK10B30-1080
LABN-K760C-79-450 PE -C1V
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS PROJECT ARE TO PERFORM DIMENSIONAL SIMILITUDE ANALYSES AND OBTAIN EXACT SOLUTIONS FOR NONLINEAR AND STOCHASTIC MODELS OF POLLUTANT TRANSPORT, BIOLOGICAL AND CHEMICAL DEGRADATION, AND DISPERSION IN RIVERS AND STREAMS. THE RESULTS OF THE ANALYSIS WILL BE USED TO STUDY THE IMPACT, CONTROL, AND PERSISTENCE OF CONTAMINANTS IN RIVERS AND STREAMS. APPROACH: THE APPROCH TO SOLVING THESE PROBLEMS WILL BE PERFORMED USING THE METHODS OF NONLINEAR ANALYSES AS GIVEN IN THE INVESTIGATOR'S BOOKS ON NONLINEAR PROBLEMS. SPECIFIC METHODS WILL INCLUDE SIMILARITY ANALYSES, SINGULAR PERTURBATION METHODS. STUDIES OF THE FIRST TWO PROBLEMS, IN WHICH DISPERSION IS NEGLECTED, SHOW THEM TO BE AMENABLE TO SOLUTION.

*PROJECT: 005125-RESTORATION OF FAILING ON-LOT SEWAGE DISPOSAL AREAS THROUGH WATER
CONSERVATION AND RESTING
TASK =CC35 -S6T025 **EPA=R807115-01 ** (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 10/81 : FY80

EPA OFFICER.: RP BOWKER EPA/MERL - CINC 513-684-7620
INVESTIGATOR.: DD FRITTON PENNSYLVANIA STATE UNIV INST ON LAND/WATER RES
MILESTONES...: 01/80 -SELECTION OF STUDY SITES COMPLETE
08/80 -IMPLEMENTATION OF REHABILITATION STRATEGY COMPLETE
06/81 -MONITORING OF SITES COMPLETE
PROGRAM ID...: (PE-C35) WASTEWATER SYSTEMS CONTROL TECHNOLOGY
MANDATE......: 10-99
ORDIS CODES..: RECN-005125 SSIE-GMA 6230 1 EPA -R807115-01 ORD -RC10530-1080
PE -C35
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO INVESTIGATE LOW-COST TECHNIQUES FOR REHABILITATING FAILED SOIL ABSORPTION SYSTEMS FOR DISPOSAL OF WASTEWATER FROM INDIVIDUAL HOMES. APPROACH: APPROXIMATELY 15 HOMES WITH FAILING WASTEWATER DISPOSAL SYSTEMS WILL BE SELECTED FOR STUDY. THE MODE AND CAUSE OF FAILURE WILL BE DETERMINED. WASTEWATER FLOWS AND SOIL ABSORPTION SYSTEM OPERATION WILL BE MONITORED FOR 4-6 MONTHS. A REHABILITATIVE STRATEGY (WATER CONSERVATION AND/OR ABSORPTION SYSTEM RESTING) WILL THEN BE IMPLEMENTED. MONITORING WILL CONTINUE FOR APPROXIMATELY 5-6 MONTHS AFTER STRATEGY IMPLEMENTATION.

*PROJECT: 005598-SOLID WASTE RESEARCH SYMPOSIUM

TASK =CC73 -M5-001 **EPA=R807121 ** (GRANT)
STARTING/ COMPLETION DATE : 00/80 - UNK : FY80

EPA OFFICER.: RE LANDRETH EPA/MERL - CINC FTS 8-684-7871
INVESTIGATOR.: D BLACK SOUTHWEST RESEARCH INST SAN ANTONIO TX 78284
PROGRAM ID...: (PE-C73) SOLID & HAZARDOUS WASTE
MANDATE......: 20-13 DAA FOR DRINKING WATER
ORDIS CODES..: RECN-005598 SSIE-GMA 6707 EPA -R807121 ORD -RC10B30-2080
PE -C73
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVES: 1) TO CIRCULATE, DISCUSS AND INTERRELATE NEW INFORMATION GATHERED BY RESEARCHERS ON TREATMENT, DATA ON MIGRATION OF POTENTIALLY HAZARDOUS CONSTITUENTS THROUGH DIVERSE SOIL TYPE. THE CONTROL PARTICLES AND ALTERNATIVE TO MINIMIZE DEGRADATION TO THE ENVIRONMENT BY HAZARDOUS WASTES. 2) TO PROMOTE CONTACT FOR OPEN AND UNRESTRAINED DISCUSSION BETWEEN RESEARCH PERSONNEL FROM VARIOUS AREAS OF THE UNITED STATES AND OTHER COUNTRIES. 3) TO PRODUCE A REPORT THAT WILL CONTAIN A COVERAGE OF THE MOST UP-TO-DATE KNOWLEDGE ON HAZARDOUS WASTE MANAGEMENT.

259.1

U.S. ENVIRONME[...] PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
SSIE 807120-01
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Potential Hazard to Man of Polluted Fish Consumption

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Harold Puffer, Ph.D.
Director, Marine & Freshwater
Biomedical Center
University of Southern California

Denny Research Building 284
Los Angeles, CA 90007

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Southern California
University Park
Los Angeles, CA 90007

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Principal objective: The principal objective of this proposal is the assessment of potential hazards to man by consumption of marine fish and shellfish from polluted waters of Los Angeles/Long Beach Harbor and coastal region of Los Angeles County. The approach will be by survey questionnaires.

It is expected that this study will show that a significant population of non-professional fishermen exists in the Los Angeles County area who directly consume marine animal tissues contaminated with hazardous pollutants. Futhermore, we expect ultimately to show that these consumers have health problems directly related to consumption of contaminated tissues.

Data from this study will provide the population served by Los Angeles County coastal waters, the Department of Fish and Game, EPA, and other governmental agencies with information of direct importance in regulating fish/shellfish use and consumption. It will also provide information relative to pollutants and their possible real hazard to humans. This could have considerable impact on standards for permissable tissue levels, after quality and recreational use of identified polluted areas of Los Angeles coastal waters.

259.2

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE R807122-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT: Effect of Agricultural Land Use Practices on Stream Water Quality: Biotic Communities

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Bruce W. Menzel, Associate Professor of Animal Ecology

NAME AND ADDRESS OF APPLICANT INSTITUTION

Iowa State University, Ames, Iowa 50011

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data)*. In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The work is part of a multidisciplinary project designed to evaluate the efficacy of Best Management Practices for mitigating agricultural nonpoint source water pollution. This is a preliminary project with the objective of establishing baseline information on the fish and benthic invertebrate communities of the primary study stream (Four-Mile Creek, Tama County, Iowa) and several nearby comparative streams. The study areas will be sampled on several occasions in Summer 1979. Fishes will be collected by seining. Benthic invertebrates will be collected with artificial substrate samplers. Measurements will be taken on stream habitat characteristics. Results of this survey will be used to formulate recommendations for continued studies on the impact of BMPs on stream communities.

259.3

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved OMB No. 158-R0081

PROJECT NO.(Do not use this space) R 807124-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA

TITLE OF PROJECT: Effect of Wastewater Disinfection Procedures on Survival of R-factor Coliform Bacteria

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. J.T. Staley, Microbiology & Immunology, Associate Professor, Principal Investigator
Dr. J.H. Crosa, Microbiology & Immunology, Research Asst. Professor
Dr. F. DeWalle, Environmental Health, Asst. Professor

Dr. D. Carlson, College of Engineering, Dean Dr. S. Falkow, Microbiology & Immunology, Professor

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Washington, Seattle, Washington 98195

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The primary objective of the proposal is to determine the effect that various wastewater treatment processes have upon the viability of antibiotic resistant, R-factor containing coliform bacteria. Raw wastewater primary, and secondary effluent will be assayed for the nature and prevalence of coliform bacteria to determine the proportion of those that contain R-factors and the antibiotic resistant types among them. The effect that various disinfectants, including chlorine, ultraviolet light, and ozone, have upon the survival of these antibiotic resistant bacteria will be assessed in a municipal wastewater treatment facility.

In addition studies will be conducted to determine whether R-factors can be transmitted by in situ conjugation of enteric bacteria in raw wastewater.

If time permits similar studies will be extended to determine the incidence of R-factors in fecal streptococci from raw sewage and the effect of the various disinfection processes on survival of these bacteria.

259.5

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE 807128-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Cooperative agreement between U.S.E.P.A. and Harvard University to measure flow-volume relationships in small animals.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

David Leith, M.D., Department of Physiology, School of Public Health, Harvard University

John J. O'Neil, Ph.D., Biomedical Research Branch, U.S.E.P.A., Research Triangle Park, N.C. 27711

NAME AND ADDRESS OF APPLICANT INSTITUTION

Department of Physiology
School of Public Health

Harvard University
655 Huntington Avenue
Boston, MA 02115

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

This cooperative agreement is to support research to develop methods of determining maximal expiratory flow-volume relationships in small laboratory animals. The approach will be to design, construct, test, and utilize plethysmographs, transducers, and amplifiers which have frequency response sufficient to make measurements in small animals. Measurements are to be made in several species to develop scaling between animals of different sizes (body weights) and in animals with defined chemically induced (emphysema-like lesions produced by elastase and fibrotic lesions produced by bleomycin).

≈59.5

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO.(Do not use this space)

SSIE

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA R807130-01

TITLE OF PROJECT

Analyses of Costs and Benefits of Pesticides

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

J.C. Headley, Professor
Department of Agricultural Economics

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Missouri
Columbia, MO 65211

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objectives: Develop impact analyses of specific RPAR pesticides, develop analyses of the impact of pest control methods on the variability of crop yields, quality and farm income, conduct analyses of the costs of human disease that may be associated with pesticide use.

Approach: Cost-benefit analysis will be applied to the assessment of RPAR compounds using data from USDA, and state agricultural universities. Estimates of yield, quality and income variability will be made statistically to determine impact of pests on risk in farming. Data from NIH and NCI will be combined with other data from state agencies to develop a pattern of cancer incidence and assess the cost of treatment.

Current Plans: The project will begin in July of 1979 and continue for two years. Reports will be issued as results are developed.

Key Personnel

Dale E. Baker, Professor of Soil Chemistry

A. K. Blackadar, Head, Department of Meteorology and Professor

Julian P. Heicklen, Professor of Chemistry

Robert L. Kabel, Professor of Chemical Engineering

A. J. McDonnell, Assistant Director, Institute for Research on Land and Water Resources, and Professor of Civil Engineering

Eva J. Pell, Associate Professor of Plant Pathology

Rosa G. de Pena, Professor of Meteorology

·PROJECT: 005337-GROUND WATER-MINERALOGY RELATIONSHIPS FOR IN SITU OIL SHALE RETORTING

TASK =LB32B-000005 ··EPA=R807125 ·· (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 04/80 : FY79

EPA OFFICER..: BD NEWPORT EPA/ERL - ADA FTS 8-743-2201
INVESTIGATOR.: JE FITZPATRICK UNIV OF DENVER DENVER RES INST
MILESTONES...: 04/80 -REPORT
PROGRAM ID...: (PE-B32) TRANSPORTATION & FATE- ENERGY
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005337 SSIE-GMA 6344 EPA -R807125 ORD -RL10B30-1079
PE -832
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: DEVELOP STATE-OF-KNOWLEDGE DOCUMENT RELATING OVERBURDEN MINERALOGY WITH ALTERATIONS IN GROUND-WATER QUALITY. APPROACH: REVIEW EXISTING LITERATURE TO DETERMINE STATE OF CURRENT RESEARCH CONCERNING MINERALOGY AND GROUND-WATER QUALITY.

·PROJECT: 005335-NATIONAL GROUND-WATER RESEARCH ON THE GARBER-WELLINGTON AQUIFER IN CENTRAL OKLAHOMA

TASK =L775H-000002 ··EPA=R807131 · ·· (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 04/82 : FY79

EPA OFFICER..: JT THORNHILL EPA/ERL - ADA FTS 8-743-2310
INVESTIGATOR.: ZD TAYLOR ASSN OF CENT OKLAHOMA GOV OKLAHOMA CITY OK 73118
D MORGAN ASSN OF CENT OKLAHOMA GOV OKLAHOMA CITY OK 73118
PROGRAM ID...: (PE-775) ANTICIPATORY R & D
MANDATE......: 30-99 GEOHYDROLOGY
ORDIS CODES..: RECN-005335 SSIE-GMA 6342 EPA -R807131 ORD -RL10B30-3079
PE -775
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO DEVELOP A COMPREHENSIVE AQUIFER MANAGEMENT PLAN AND TO DEVELOP PROTOCOL THAT COULD BE USED IN THE STUDY OF AQUIFERS IN OTHER PARTS OF THE COUNTRY. APPROACH: DETAILED STUDY OF AQUIFER CHARACTERISTICS, WATER QUALITY, WATER USE AND NATURAL AND MAN-MADE SOURCES OF POLLUTION. DEVELOP AQUIFER MODEL AND METHOD FOR IMPLEMENTING AQUIFER MANAGEMENT PLAN.

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*PROJECT: 005450-THE INFLUENCE OF ORGANIC TOXINS ON INFANT DEVELOPMENT

                  TASK =N769 -000056 **EPA=R807132      ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 10/82 :   FY79
EPA OFFICER..: NA THOMAS                EPA/ERL - DULUTH              FTS 8-226-7811
INVESTIGATOR.: G  FEIN                  MERRILL PALMER INST.          PARENT & CHILD DEV CNTR
MILESTONES...: 12/79 -STUDY SITES. SELECTED STAFF TRAINING
               09/80 -CONDUCT NEWBORN TESTING
               12/80 -PROGRESS REPORT
               10/81 -PROGRESS REPORT
               10/82 -ECOSERIES REPORT
PROGRAM ID...: (PE-769 )          GREAT LAKES PROGRAM
FINAL OUTPUT.: ECOSERIES REPORT
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
               10-03     TOXIC SUBSTANCES CONTROL ACT
               20-R05    EPA REGION V
               30-99     PUBLIC HEALTH
ORDIS CODES..: RECN-005450         SSIE-GMA  6311       EPA -R807132         ORD -RN10B30-5079
               PE  -769
PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL        ENTERED - UNKNOWN    UPDATED-  JAN-MAR 80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVES: TO EXAMINE THE EFFECTS OF EXPOSURE IN UTERO TO POLYCHLORINATED BIPHENYLS ON THE
                BEHAVIORAL DEVELOPMENT OF INFANTS. APPROACH: THE STUDY WILL INCLUDE 200 NEWBORNS FROM LOCATIONS
                KNOWN TO HAVE A HIGH LEVEL OF EXPOSURE TO PCBS. MEASURES WILL INCLUDE PRECHTEL NEUROLOGICAL
                EXAMINATION, THE BRAZELTON NEONATAL ASSESSMENT, FAMILY AND MATERNAL BACKGROUND INFORMATION.


*PROJECT: 005136-HEALTH IMPACTS OF ALTERED GEOCHEMISTRY ASSOCIATED WITH MINE DRAINAGE
               FROM WESTERN INTERIOR COALS
                TASK =DC2R -000044 **EPA=R807133      ** (GRANT)
                STARTING/ COMPLETION DATE : 11/79 - 05/81 :   FY80
EPA OFFICER..: C  SONICH                EPA/HERL - CINC               FTS 8-684-7389
INVESTIGATOR.: BG WIXSON                UNIV OF MISSOURI              DEPT OF GEOLOGICAL ENG
               NL GALE                  UNIV OF MISSOURI              DEPT OF GEOLOGICAL ENG
               HJ POTTINGER             UNIV OF MISSOURI              DEPT OF GEOLOGICAL ENG
MILESTONES...: 10/80 -END MISSOURI PHASE/BEGIN EXPANSION OF STUDY TO IOWA, OKLAHOMA & KANSAS
PROGRAM ID...: (PE-C2R )          HEALTH EFFECTS OF ENERGY RELATED POLLUTANTS
MANDATE......: 30-99     EPIDEMIOLOGY
ORDIS CODES..: RECN-005136         SSIE-GMA  6250 1     EPA -R807133         ORD -RD10B30-3080
               LABN-D834 -021      PE  -C2R
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THIS STUDY IS DESIGNED TO DETERMINE THE EXISTENCE OF A RELATIONSHIP BETWEEN ACID MINE
                DRAINAGE CONTAMINATION OF POTABLE WATER SUPPLIES AND HUMAN HEALTH. THIS IS TO BE DONE IN THE
                WESTERN INTERIOR COAL REGION ENCOMPASSING THE STATES OF MISSOURI, IOWA, OKLAHOMA, AND KANSAS.
                APPROACH: THE APPROACH IS THROUGH AN ECOLOGIC STUDY LOOKING FOR RELATIONSHIPS BETWEEN EPIDEMIOLOGIC
                DATA AND WATER QUALITY DATA. THE EPIDEMIOLOGIC DATA INCLUDE COUNTY CANCER MORTALITY RATES ON 30
                CAUSES OF DEATH FROM NCI AND CENSUS INFORMATION. WATER QUALITY DATA INCLUDE SURFACE AND GROUND
                WATER QUALITY DATA AND DATA OBTAINED FROM SAMPLES OF TAP WATER.
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261.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA R-807145-01

TITLE OF PROJECT

Technology Evaluation For Priority Pollutant Removal From Dyestuff Manufacture Wastewaters

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Thomas M. Keinath Professor of Environmental Systems Engineering
Thomas E. Pollock Assistant Professor of Environmental Systems Engineering

NAME AND ADDRESS OF APPLICANT INSTITUTION

Clemson University
Clemson, SC 29631

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The objectives of the research program are (a) to exhaustively identify and quantify those priority pollutants contained in dyestuff manufacture wastewaters, (b) to establish the performance characteristics of existing BPT wastewater treatment systems with respect to the removal of priority pollutants, and (c) to affirmatively establish the effect of three candidate BAT treatment processes including adsorption on granular activated carbon, ozonation, and combined powdered activated carbon/biodegradation treatment on the removal, conversion, and/or production of priority pollutants. The study will be conducted using wastewaters obtained from five or more participating dyestuff manufacturers. The Dyes Environmental and Toxicology Organization, Inc. will act in a facilitating capacity regarding contacts with the individual participating dyestuff manufacturers.

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*PROJECT: 005240-WASTEWATER TREATMENT WITH PLANTS IN NUTRIENT FILMS

                TASK =LC35 -000066 **EPA=R807134-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 10/79 - 04/80 :   FY80
 EPA  OFFICER.: WR DUFFER              EPA/ERL - ADA                  FTS-8-743-2243
 INVESTIGATOR.: WJ JEWELL              CORNELL UNIV                   SCH OF ENG/AGRIC ENG
 MILESTONES...: 04/80 -FEASIBILITY REPORT
 PROGRAM ID...: (PE-C35 )          WASTEWATER SYSTEMS CONTROL TECHNOLOGY
 FINAL OUTPUT.: FEASIBILITY REPORT
 MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
 CURR. RESULTS: EXPERIMENTAL SYSTEM HAVE BEEN OPERATED FOR 3 LEVELS OF TESTING
                THESE ARE (1) PURE SUBSTITUTE DEFINITION OF PLANT NUTRIENT
                RESPONSE (2) SYNTHETIC WASTEWATER AND (3) PRIMARY SETTLED
                DOMESTIC SEWAGE
 ORDIS CODES..: RECN-005240         SSIE-GMA  6155 1       EPA -R807134-01       ORD -RL10B30-1080
                PE  -C35
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED           ENTERED - UNKNOWN     UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO DETERMINE THE FEASIBILITY OF USING PLANTS GROWN IN A NUTRIENT FILM TECHNIQUE (NFT)
                 SYSTEM FOR TREATMENT OF MUNICIPAL WASTEWATER. APPROACH: TESTS WILL BE PERFORMED TO ESTABLISH THE
                 EFFECT OF REMOVAL OF GROSS AND TRACE INORGANICS AND ORGANICS IN WASTEWATER. PLANT YIELDS UTILIZING
                 THE NFT SYSTEM ALSO WILL BE DETERMINED.

*PROJECT: 005273-UV-DATA BANK

                TASK =XB64A-000005 **EPA=R807146-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 10/79 - 09/80 :   FY79
 EPA  OFFICER.: EC DEFABO              EPA/OHR- DAA                   202-426-2317
 INVESTIGATOR.: C  FROHLICH            WORLD RADIATION CENTER         DAVOS DORF          SWITZERLAND
                P  BENER               WORLD RADIATION CENTER         DAVOS DORF          SWITZERLAND
 MILESTONES...: 01/80 -ARRAY DATE FOR KEY PUNCHING
                03/80 -DESIGN 4 TEST PROGRAM FOR STORAGE ON TAPE
                05/80 -KEY PUNCH DATA AND STORE ON TAPE
                08/80 -DESIGN AND TEST FORTAN IV RETRIEVAL PROGRAM
                09/80 -PREPARE USER MANUAL. DELIVER TAPE AND MANUAL
 PROGRAM ID...: (PE-864 )          ECOLOGICAL EFFECTS -STRATS MODS
 FINAL OUTPUT.: USER MANUAL. TAPE.
 MANDATE......: 40-99
 CURR. RESULTS: ALL RAW DATA AVAILABLE.  SOME IN HARD COPY.
 ORDIS CODES..: RECN-005273         SSIE-GMA  6150         EPA -R807146-01       ORD -RX10B30-4079
                PE  -864
 PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL          ENTERED - UNKNOWN     UPDATED-  OCT-DEC 79
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: MAKE UV DATA COLLECTED IN 1958-1961 AND 1965-1969 AVAILABLE ON COMPUTER TAPE. APPROACH:
                 PUT NEW DATA ON TAPE. WRITE FORTRAN IV PROGRAMS TO RETRIEVE DATA. AND DOCUMENT INSTRUCTIONS FOR USE
                 OF DATA.
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PROJECT: 006664-ELECTROPHYSIOLOGICAL EVALUATION OF NEUROTOXIC HAZARDS RELATED TO ENERGY

TASK #HC2R -995400 --EPA=R807150 -- (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 09/81 : FY80

EPA OFFICER.: DA OTTO — EPA/HERL - RTP — FTS 8-629-2601
INVESTIGATOR.: UNKNOWN — S R I INTERNATL — PALO ALTO — CA
MILESTONES....: 03/80 -COMPLETE NORMATIVE DEVELOPMENTAL STUDY
06/80 -COMPLETE HEXANE DATA ACQUISITION
09/80 -COMPLETE PRELIMINARY ANALYSIS
12/80 -FINAL REPORT
PROGRAM ID....: (PE-C2R) HEALTH EFFECTS OF ENERGY RELATED POLLUTANTS
MANDATE.......: 10-02 CLEAN AIR ACT
ORDIS CODES...: RECN-006664 — SSIE-HZ 809954 — EPA -R807150 — ORD -RH10B30-2080
PE -C2R
PROJ STATUS...: PROJECT-ACTIVE — INFO-ORIGINAL — ENTERED - 06-28-80 — UPDATED- 06-28-80
CATEGORY-RESEARCH — ACCESS-PUBLIC

ABSTRACT......: DEVELOP IMPROVED ELECTROPHYSIOLOGICAL METHODS FOR DETECTING POTENTIALLY HARMFUL EFFECTS OF ENVIRONMENTAL NEUROTOXICANTS ASSOCIATED WITH THE DEVELOPMENT AND USE OF ENERGY RESOURCES. PROVIDE COMPARATIVE INTERSPECIES DATA AND COMPARE EFFECTS ON DIFFERENT SENSORY SYSTEMS. DURING THE FIRST QUARTER THE GRANTEE CONDUCTED SEVERAL PILOT EXPERIMENTS TO EVALUATE THE OPTIMAL ELECTRODE SITE AND CONFIGURATION FOR RECORDING AUDITORY, SOMATOSENSORY AND VISUAL EVOKED POTENTIALS IN RATS. PILOT EXPERIMENTS WERE ALSO CONDUCTED TO VALIDATE THE BIOLOGICAL NATURE OF SOMATOSENSORY EPS ELICITED BY TAIL STIMULATION. SYSTEMATIC CHANGES IN SEPS INDUCED BY XYLOCAINE NERVE BLOCK AND ICE PACK COOLING OF THE TAIL VERIFIED THAT SEPS RECORDED FROM SOMATOSENSORY CORTEX WERE GENUINE NEURAL RESPONSES. ANOTHER PILOT STUDY WAS RUN IN 6 RATS TO DETERMINE THE EFFECT OF WEIGHT LOSS ON BRAINSTEM AUDITORY EVOKED RESPONSES (BAER). RESULTS INDICATED NO CHANGE IN BAER UNTIL BODY WEIGHT REDUCTION EXCEEDED 30 PERCENT. THIS FINDING IS AN IMPORTANT CONTROL FOR FUTURE EXPERIMENTS IN WHICH WEIGHT LOSS MAY BE EXPECTED AS A SIDE EFFECT OF TOXICANT EXPOSURE. CHANGES BAERS INDUCED BY TOXICANTS WITHOUT WEIGHT LOSS GREATER THAN 30 PERCENT CAN THUS BE ATTRIBUTED DIRECTLY TO THE TEST SUBSTANCE THE GRANTEE HAS SO FAR DEMONSTRATED OUTSTANDING PROGRESS IN MEETING PROJECT OBJECTIVES.

PROJECT: 005448-DETERMINATION OF PCBS & OTHER HALOGENATED HYDROCARBONS IN HUMAN FLUIDS UTILIZING WCOT-CHROMATOGRAPHY E17 NCI MASS SPECTROMETRY (AEB

TASK #N769 -000054 --EPA=R807167 -- (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 10/82 : FY79

EPA OFFICER.: MD MULLIN — EPA/ERL - DULUTH — FTS 8-226-7811
INVESTIGATOR.: ED PELLIZZARI — RESEARCH TRIANGLE INST — RTP — NC 27709
MILESTONES....: 10/82 -REPORT - ALL ANALYSES DONE - PROCEDURE CONFIRMED
PROGRAM ID....: (PE-769) GREAT LAKES PROGRAM
FINAL OUTPUT..: REPORT- ALL ANALYSES DONE- PROCEDURE CONFIRMED
MANDATE.......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES...: RECN-005448 — SSIE-GMA 6308 — EPA -R807167 — ORD -RN10B30-1079
PE -769
PROJ STATUS...: PROJECT-ACTIVE — INFO-UPDATED — ENTERED - UNKNOWN — UPDATED- JAN-MAR 80
CATEGORY-RESEARCH — ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: DETERMINATION OF PCBS AND OTHER HALOGENATED HYDROCARBONS IN EXTRACTS. TO BE FURNISHED BY EPA-LLRS. UTILIZING A NEW PROCEDURE (NCI/MS). APPROACH: SAMPLES WILL BE ANALYZED AND COMPARED TO STANDARDS FURNISHED BY EPA-LLRS. PROCEDURES WILL BE OPTIMIZED AS EXPERIENCE DICTATES.

263.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
SSIE R807151-01
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT
Costs and Benefits of Pesticide Use

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Earl R. Swanson, Department of Agricultural Economics
Robert B. Schwart, Department of Agricultural Economics
Luis Zavaleta, Agricultural Entomology

NAME AND ADDRESS OF APPLICANT INSTITUTION
The Board of Trustees of the University of Illinois
Urbana, IL 61801

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for those purposes.

Objectives: To provide analyses of costs and benefits of the use of pesticides on crops in Illinois and other states.

Approach: To conduct economic analyses of proposed regulatory actions on specific pesticides for which regulatory action is proposed. The economic impact of shifting from a problem pesticide to another control is to be the focus of the analysis. Baseline studies will also be conducted on the control of economic pests by chemical and non-chemical means without reference to specific pending regulatory action.

263. 2

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R 807158

TITLE OF PROJECT

A Model for the Management and Conceptual Design of Potable Water Systems

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Stephen P. Shelton Ph.D, PE
Assistant Professor of Civil Engineering
College of Engineering

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of South Carolina
Columbia, South Carolina 29208

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

This proposed research project intends to develop a comprehensive engineering tool to evaluate various treatment alternatives for potable water supply in order to ascertain the best treatment chain at the minimum cost. This tool will be developed by identification of significant treatment operations, that are currently available to the water industry and/or may become available in the near future. Treatment chains will be identified using published EPA documents as well as documents supplied elsewhere in the literature. Once identified, the treatment chains will be characterized in terms of requisite water quality and changes in water quality and quantity across the treatment chain, cost per unit of production, and maximum and minimum design volume for typical cases, fixed costs, operating and maintenance costs, and others to be identified by joint discussions between the EPA project officer, project consultant, and the principal investigator. Once the treatment chains and their characteristics are defined, a comprehensive design and and economic model will be developed to allow interactive decision making to determine the most comprehensive and cost effective treatment chain for various situations of concern. This model will then be tested to assure sensitivity and accuracy for a spectra of raw surface waters and requisite qualities for systems of different sizes.

263.3

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE 8-807160-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT GC-MS Analysis of Potential Carcinogenic Organic Pollutants in Aquatic Organisms and Sediments

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

JOHN L. LASETER, Ph.D., Director, Center for Bio-Organic Studies
University of New Orleans - Principal Investigator

GEORGE C. LAWLER, Ph.D., Research Associate, Center forBio-Organic Studies
University of New Orleans - Co-Investigator

NAME AND ADDRESS OF APPLICANT INSTITUTION

UNIVERSITY OF NEW ORLEANS
Lakefront, New Orleans, Louisiana 70122

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The primary objective of this study is to obtain reliable measurements of the concentrations of specific organic pollutants in fish, oyster and sediment samples collected in three Gulf Coast bays and a control area over a period of one year. This analytical data will be correlated with histopathalogical observations made on fish and oyster samples taken at the same sites in an attempt to better define the relationship between organic marine pollutants and the occurrence of neoplasms in marine fish and shellfish. Ancillary to the primary objective, a qualitative screening of the three bays for 112 organic unambiguous priority pollutants will be carried out. The project will be conducted as a two phase sampling exercise. Quantitative data obtained in Phase I will be used to estimate the number of replicate samples required to obtain Phase II quantitative data within acceptable error limits. The Phase I qualitative priority pollutant data will be used to make the final selection of organic pollutants that will be quantitated in Phase II. Gas chromatography and combined gas chromatography and mass spectrometry will be the primary analytical techniques used in this study. An analytical quality assurance program utilizing both external and internal quality control measures will be routinely incorporated into the analytical schedule.

263.4

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA R807163-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Citizens Futures Study: Hazardous Waste Facility Siting

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

John Fuller, Director, Institute of Urban and Regional Research
William Farrell, Associate Vice President, Educational Development and Research
Clayton Ringgenberg, Director, Institute of Public Affairs

NAME AND ADDRESS OF APPLICANT INSTITUTION

Institute of Urban and Regional Research, N246-OH Oakdale Campus, The University of Iowa, Iowa City, IA 52242

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The Institute of Urban and Regional Research in cooperation with the Institute of Public Affairs, the University of Iowa, is organizing a citizens working conference to address the futures issue of hazardous waste facility siting in Iowa. In June 1980 environmentally-aware Iowans, who previously demonstrated their concern by participating in the IOWA:2000 and/or the Iowa 208 regional planning groups, will consider and discuss the economic, social and legal issues and impacts of hazardous waste facility siting, and recommend the appropriate state government role.

A conference summary report will be issued in October 1980, containing an executive summary, a summary of the citizen discussion and policy recommendations, the papers presented at the conference, and possibly an analysis by an expert in the field, who will draw upon the citizen discussion to summarize the substantive issues and make "actionable" policy recommendations. The conference summary report will be formally transmitted through the Legislative Environmental Advisory Group to the Iowa State Legislature, conference participants, interested citizens and appropriate government agencies.

The project is funded by the United States Environmental Protection Agency, the University of Iowa and the Iowa Department of Environmental Quality.

·PROJECT: 003365-NON-POINT SOURCE SEDIMENT PRODUCTION IN THE COLUSA BASIN DRAINAGE AREA, CALIFORNIA - PHASE TWO
TASK =L770A-1-0042 ··EPA=R807169-010 ·· (GRANT)
STARTING/ COMPLETION DATE : 10/77 - 09/81 : FY79

EPA OFFICER : AG HORNSBY EPA/ERL - ADA FTS 8-743-2303
INVESTIGATOR.: KK TANJI UNIV OF CALIFORNIA COOP EXTENSION SERVICE
MILESTONES...: 09/81 -REPORT ON CAUSE AND EFFECTS OF SEDIMENTATION AND RECOMMENDED BMP'S FOR STUDY AR
PROGRAM ID...: (PE-770) RENEWABLE RESOURCES -WATER QUALITY
FINAL OUTPUT.: REPORT ON CAUSE AND EFFECTS OF SEDIMENTATION AND RECOMMENDED BMP'S FOR STUDY AREA.
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: A 211-PAGE ANNUAL REPORT HAS BEEN PRINTED BY THE GRANTEE ENTITLED "SEDIMENT PRODUCTION AND TRANSPORT IN COLUSA BASIN DRAINAGE AREA 1977-1978". NOVEMBER 1978. WATER SCIENCE AND ENGINEERING PAPER 4016. UNIVERSITY OF CALIFORNIA, DAVIS.
FINAL REPORT IN PREPARATION.
MINEROLOGICAL COMPOSITION OF BEDLOAD MATERIALS HAS BEEN MADE. COEFFICIENT FOR THE WISCHMEIR EQUATION HAVE BEEN DEV. FOR SELECTED SODIUM AFFECTED SOILS.
ORDIS CODES..: RECN-003365 SSIE-GMA 3820 3 EPA -R807169-010 ORD -RL10B30-1079
PE -770
PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT......: OBJECTIVE: THIS PHASE II STUDY WILL (1) CONTINUE MONITORING WATER FLOW, SUSPENDED AND BEDLOAD MATERIALS IN THE 70-MILE LONG COLUSA BASIN DRAIN; (2) CHARACTERIZE THE CHEMICAL, PHYSICAL, AND MINERALOGICAL PROPERTIES OF THE SUSPENDED AND BEDLOAD MATERIALS RELATIVE TO THEIR LIKELY ORIGIN IN THE BASIN; (3) DEVELOP POTENTIAL SOIL LOSS ESTIMATES WITH A MODIFIED WISCHMEIER EQUATION; (4) INVENTORY HIGH USE AND PERSISTENT PESTICIDES AND ANALYZE FOR THESE MATERIALS IN SEDIMENT AND DRAINAGE WATER; AND (5) RECOMMEND BMP'S FOR THE BASIN STUDY AREA. APPROACH: FIELD AND LABORATORY STUDIES WILL BE USED TO ELABORATE CAUSE AND EFFECT RELATIONSHIPS AND TO EXPLAIN SEDIMENT PRODUCTION IN THE STUDY AREA. BASED ON THESE RELATIONSHIPS AND COOPERATIVE EXTENSION SERVICE KNOWLEDGE OF FARM MANAGEMENT IN THE STUDY AREA, BMP'S WILL BE DEFINED.

*PROJECT: 005356-STATISTICAL DESIGN AND ANALYSIS OF CHESAPEAKE BAY AND GULF BREEZE ERL DATA
TASK =N882 -000004 **EPA=R807170 ** (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 09/82 : FY79

EPA OFFICER.: L BAHNER EPA/ERL - DULUTH 301-266-0077
INVESTIGATOR.: JJ OGLESBY UNIV OF WEST FLORIDA DEPT OF BIOL
PROGRAM ID...: (PE-882) SCIENTIFIC ASSESSMENT R & D -AIR
MANDATE......: 10-99 SENATE REPORT 94-326
CURR. RESULTS: INSTITUTE WILL ASSUME THE RESPONSIBILITY FOR FORMATTING THE DATA AND PROVIDE FOR DATA ENTRY INTO EPA'S GULF BREEZE COMPUTER NETWORK. INSTITUTE WILL ALSO FURNISH COMPLETE SUMMARIES OF THE ANALYSIS AND APPROPRIATE GRAPHICAL AIDS FOR INTERPRETING THE DATA.
ORDIS CODES..: RECN-005356 SSIE-GMA 6339 EPA -R807170 ORD -RN10B30-1079
PE -882
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: THE PRINCIPAL OBJECTIVE OF THIS PROPOSED PROGRAM IS TO PROVIDE TO GULF BREEZE ERL AND CBP RESEARCHERS AND ADMINISTRATORS THE NECESSARY STATISTICAL AND COMPUTATIONAL SKILLS REQUIRED FOR THE PLANNING AND ANALYSIS OF THEIR EXPERIMENTAL DATA. THE ANALYSES WILL BE OF SUFFICIENT DETAIL AND COMPLETENESS SO AS TO BE USABLE BY THE RESEARCHERS IN SETTING PRACTICES AND POLICIES FOR THE AGENCY WHENEVER THESE ARE REQUIRED. THE PROGRAM BEING PROPOSED IS QUITE FLEXIBLE AND IS SPECIFICALLY DESIGNED TO ALLOW FOR CONSTANT INTERACTION BETWEEN GULF BREEZE ERL, CBP AND INSTITUTE PERSONNEL. APPROACH: THE SERVICES TO BE PROVIDED BY THIS AGREEMENT ARE BOTH STATISTICAL AND COMPUTATIONAL. INSTITUTE STAFF WILL WORK WITH THE RESEARCHERS IN PLANNING THEIR FUTURE EXPERIMENTS AND AT THE SAME TIME, BEGIN ANALYZING THEIR CURRENT DATA WHERE POSSIBLE. ONE OF THE MOST OBVIOUS BENEFITS OF THE AGREEMENT IS IN THE AREA OF FUTURE ANALYSIS OF EXPERIMENTAL DATA GENERATED THROUGH USE OF BETTER PLANNED EXPERIMENTS.

*PROJECT: 005336-SEMINAR ON AQUACULTURE SYSTEMS FOR WASTEWATER TREATMENT

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               TASK =L822C-000043 **EPA=R807180-01  ** (GRANT)
               STARTING/ COMPLETION DATE : 10/79 - 03/80 :   FY79
EPA  OFFICER.: WR DUFFER             EPA/ERL - ADA               FTS 8-743-2243
INVESTIGATOR.: C  MARTIN             STATE WATER RES CONT BOARD  SACRAMENTO        CA 95801
MILESTONES...: 03/80 -SEMINAR PROCEEDINGS
PROGRAM ID...: (PE-822 )         CONTROL TECH & POINT SOURCE- WATER QUALITY
FINAL OUTPUT.: SEMINAR PROCEEDINGS
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: THE PROCEDING OF THE SEMINAR HAVE BEEN PREPARED AND ARE
               BEING REVIEWED.
ORDIS CODES..: RECN-005336         SSIE-GMA  6345       EPA -R807180-01       ORD -RL10B30-1079
               PE  -822
PROJ STATUS..: PROJECT-ACTIVE      INFO-UPDATED         ENTERED - UNKNOWN     UPDATED-  JAN-MAR 80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO CONDUCT A SEMINAR ON THE USE OF AQUATIC SYSTEMS FOR THE TREATMENT OF WASTEWATER.
                WETLANDS PROCESSES AND AQUATIC PLANT PROCESSES WILL BE EMPHASIZED. OTHER AQUATIC TREATMENT
                PROCESSES AS WELL AS ECONOMICS, ENERGY, AND BY-PRODUCT UTILIZATION, HOWEVER, WILL BE CONSIDERED.
                APPROACH: CASE STUDIES DRAWN FROM THROUGHOUT THE UNITED STATES WILL BE USED TO ILLUSTRATE THE
                ENGINEERING, DESIGN, OPERATION, AND MANAGEMENT OF THESE SYSTEMS.
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*PROJECT: 005205-CARBON AND GRAPHITE AEROSOL - CHARACTERISTICS AND POTENTIAL ENVIRONMENTAL IMPACT

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               TASK =GC07 -000486 **EPA=R807182     ** (GRANT)
               STARTING/ COMPLETION DATE : 09/79 - 09/82 :   FY80
EPA  OFFICER.: CW LEWIS              EPA/ESRL - RTP              FTS 8-629-3154
INVESTIGATOR.: M  TESTERMAN          UNIV OF ARKANSAS            GRADUATE INST OF TECHN
               M  MAZUMDER           UNIV OF ARKANSAS            GRADUATE INST OF TECHN
MILESTONES...: 09/82 -DELIVERY OF INSTRUMENTATION
PROGRAM ID...: (PE-C07 )         CHARAC. & MEASUREMENT METHODS DEVEL - AIR
FINAL OUTPUT.: DELIVERY OF INSTRUMENTATION
MANDATE......: 10-02     CLEAN AIR ACT
CURR. RESULTS: MEASUREMENTS MADE OF AERO. DIA. OF CARBON FIBER FRAGMENTS
               RESULTING FROM SAWING OF COMPOSITES.
ORDIS CODES..: RECN-005205         SSIE-GMA  6195 1     EPA -R807182          ORD -RG10B30-1080
               LABN-G712B-BE-011   PE  -C07
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED         ENTERED - UNKNOWN     UPDATED-  06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO DEVELOP INSTRUMENTATION FOR THE CONTINUOUS MEASUREMENT OF AMBIENT CARBON FIBER
                AEROSOL. APPROACH: 1. CONDUCT EXPERIMENTS TO SIMULATE THE PRODUCTION OF CARBON FIBER AEROSOL AS IT
                MAY OCCUR IN REAL PROCESSES. 2. CHARACTERIZE THE PHYSICAL PROPERTIES OF CARBON FIBER AEROSOL AS
                PRODUCED IN SIMULATED PROCESSES. 3. DESIGN AND CONSTRUCT INSTRUMENTATION FOR FIELD MEASUREMENT OF
                CARBON FIBER AEROSOL.
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266.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE R807184-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Illinois: Citizens Futures Studies

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Franklyn H. Moreno, Executive Director
Elizabeth L. Hollander, Associate Director

NAME AND ADDRESS OF APPLICANT INSTITUTION

Task Force on the Future of Illinois
4521 Faner Hall, S.I.U.
Carbondale, Illinois 62901

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objectives: To demonstrate a process for broad-based citizen participation in futures goals identification, decision-making, and implimentation processes at a statewide and regional level. To improve the skills and the knowledge about the various citizen participation processes that most effectively achieve the above objectives at statewide and regional levels. Also, to expand the concern for the environment, to expand citizen and organization information and involvement in the future, and to improve our ability to anticipate problems and opportunities of the future.

Approach: To conduct a series of State/Regional Futures meetings in various locations throughout the State of Illinois. These meetings will utilize reports of the Task Force, Illinois 2000 Foundation, Regional Profiles, among others, to provide citizen participants an opportunity to review trend data, assess alternative futures, and respond to a strategy for the future. The meetings will use a variety of citizen participation approaches, which will also be analyzed as to their effectiveness in meeting project objectives.

Current Plans and/or Progress: The Task Force has produced a Working Paper on the Future of Illinois, a number of Resource Statements, and a report entitled Human Services in Illinois: Trends and Projections to the Year 2000.

266·2

U.S. ENVIRONMENTAL PROTECTION AGENCY

Form Approved
OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. (Do not use this space)
SSIE
EPA R807189-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Identification of Applied Ecological Principles Applicable to Regulatory Decision Making

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Peter N. Klose, Ph.D. - ERM, Inc. - Project Director
George T. Potera, Ph.D. - ERM, Inc. - Senior Scientist
W.D. Klimstra, Ph.D. - Southern Illinois University - Senior Scientist
David M. Bell, Ph.D. - Lehigh University - Senior Scientist

NAME AND ADDRESS OF APPLICANT INSTITUTION

Environmental Resources Management, Inc. (ERM)
One South Church Street
West Chester, Pennsylvania 19380

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

(1) Objectives - The main objective of this proposal is to further develop two specific areas of applied ecology: (a) the identification and documentation of ecological (non-health) impacts which regulate the manufacture of toxic chemicals; and (b) the identification and synthesis of biotic and abiotic information on aquatic and terrestrial flora and fauna suitable for test standards required under the Toxic Substances Control Act (TSCA).

(2) Approach - Toxic materials which produce or have the potential of producing irreversible, irreparable or extensive spatial or temporal damage to an ecosystem or its critical species or processes, should be regulated under TSCA.

Critical ecological processes will be identified by a detailed literature review, seminars with EPA laboratories, senior scientists, and OTS staff. Consultation will be carried out with recognized authorities in the field of ecological impact assessment.

The types of ecological process effects which will be considered include: energy utilization, growth, reproduction and development, decomposition, species structure, ecosystem structure, genetic capacity, and reduction in ecosystem stability or resiliency.

The second major work area to be developed under this cooperative agreement involves assistance in the preparation of test standards as required by TSCA.

Each of the proposed test standards, such as use of a *Daphnia* bioassay for a certain chemical, must be supported by detailed scientific literature related to that test. The technical support document must contain all of the rationale, options considered, issues resolved and to be explained, comparability questions and references, and other pertinent information.

It is ERM's purpose to aid in the development of the scientific information required for the test standard technical support documents.

*PROJECT: 005110-AREAWIDE APPLICATION OF CCP TECHNICAL ASSISTANCE TO STATE ENFORCEMENT PROGRAMS
TASK =CC36 -S2TD01 **EPA=R807191 ** (GRANT)
STARTING/ COMPLETION DATE : 10/79 - 06/82 : FY80

EPA OFFICER.: FL EVANS EPA/MERL - CINC FTS-8-684-7610
INVESTIGATOR.: F MATTER STATE DEPT. OF HEALTH DENVER CO 80220
R SCHUYLER STATE DEPT. OF HEALTH DENVER CO 80220

MILESTONES...: 06/80 -IDENTIFY AND SELECT PLANT SITES
12/80 -COMPLETE COMPREHENSIVE PLANT EVALUATIONS
02/81 -COMPLETE COMPOSITE CORRECTION PROGRAMS
07/81 -COMPLETE COMPLIANCE MONITORING & DEVELOPMENT OF STATEWIDE STRATEGY
10/81 -SUBMIT DRAFT FINAL REPORT

PROGRAM ID...: (PE-C36) URBAN S'S & TOXICS RESIDUAL MANAGE - WATER QUALITY

MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
20-11 DAA FOR WATER PLANNING AND STANDARDS

CURR. RESULTS: PROPOSALS RECEIVED IN RESPONSE TO THE RFP BY THE STATE COLORADO HEALTH DEPT. ARE BEING REVIEWED. A CONTRACTOR TO PREFORM THE REQUIRED GRANT SCOPE OF WORK IS TO BE SELECTED IN APRIL 80

ORDIS CODES..: RECN-005110 SSIE-GMA 6225 1 EPA -R807191 ORD -RC10B30-5080
PE -C36

PROJ STATUS..: ACTIVE -MULTIYEAR INFO-UPDATED ENTERED - UNKNOWN UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: OBJECTIVE: 1. DOCUMENT THE COST EFFECTIVENESS AND MANAGEMENT FEASIBILITY OF A WATER QUALITY IMPROVEMENT STRATEGY ON AN AREAWIDE BASIS BY IMPROVING THE PERFORMANCE OF POTWS AND BRINGING THEM INTO COMPLIANCE. 2. EVALUATE THE INTEGRATION OF PRIVATE SECTOR TECHNICAL ASSISTANCE EXPERTISE AND STATE ASSISTANCE IN THE IMPLEMENTATION OF A COST EFFECTIVE COMPLIANCE/ENFORCEMENT PROGRAM. 3. PROVIDE AN ESSENTIAL ELEMENT IN THE DEVELOPMENT OF A MODEL STATE LEVEL COMPLIANCE AND ENFORCEMENT STRATEGY INCORPORATING THE INTEGRATED TECHNICAL ASSISTANCE CCP APPROACH. APPROACH: 1. IDENTIFICATION OF POTWS AND SELECTION OF CANDIDATE PLANT SITES. 2. PERFORM COMPREHENSIVE PLANT EVALUATIONS AT CANDIDATE PLANT SITES. 3. IMPLEMENT COMPOSITE CORRECTION PROGRAM. 4. CONDUCT FOLLOW-UP TECHNICAL ASSISTANCE AND MONITORING. 5. DEVELOP A STATE AREAWIDE CCP APPROACH TO IMPROVING PLANT PERFORMANCE.

·PROJECT: 005447-EVALUATION OF HUMANS EXPOSED TO WATERBORNE CHEMICALS IN THE GREAT LAKES

TASK =N769 -000053 ··EPA=R807192 ** (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 08/82 : FY79
EPA OFFICER.: MD MULLIN EPA/ERL - DULUTH
INVESTIGATOR.: HE HUMPHREY STATE DIV. OF ENVIRN. EPIDEM. FTS 8-226-7811 LANSING MI 48909
MILESTONES...: 09/79 -QUARTERLY REPORTS
08/82 -REPORT
PROGRAM ID...: (PE-769) GREAT LAKES PROGRAM
MANDATE......: 10-01 FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005447 SSIE-GMA 6310 EPA -R807192 ORD -RN10B30-1079
PE -769
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: IDENTIFY A COHORT OF PERSONS IN THE GREAT LAKES AREA EXPOSED TO CHEMICAL CONTAMINANTS PRESENT IN THE GREAT LAKES IN ORDER TO INVESTIGATE WHETHER OR NOT LONG OR SHORT TERM HEALTH EFFECTS CAN BE OBSERVED AND RELATED TO SUCH EXPOSURE. APPROACH: HUMAN BLOOD AND MILK SAMPLES WILL BE OBTAINED. LEVELS OF PCBS, PBBS, DDE AND OTHER CONTAMINANTS KNOWN TO BE PRESENT IN THE GREAT LAKES WILL BE QUANTIFIED. ACUTE AND CHRONIC MEDICAL EFFECTS WILL BE LOOKED FOR AND CORRELATED WITH RESIDUE LEVELS.

·PROJECT: 005453-U.S. NATIONAL MUSSEL WATCH

TASK =P775 -000041 ··EPA=R807223 ** (GRANT)
STARTING/ COMPLETION DATE : 11/79 - 11/82 : FY79
EPA OFFICER.: DK PHELPS EPA/ERL - NARR
INVESTIGATOR.: R RISEBROUGH BODEGA BAY INST FTS 8-838-4843 BERKELEY CA
MILESTONES...: 11/82 -FINAL REPORT
PROGRAM ID...: (PE-775) ANTICIPATORY R & D
MANDATE......: 30-99 MARINE ECOLOGY
ORDIS CODES..: RECN-005453 SSIE-GMA 6270 EPA -R807223 ORD -RP10B30-3079
PE -775
PROJ STATUS..: PROJECT-ACTIVE INFO-UPDATED ENTERED - UNKNOWN UPDATED- JAN-MAR 80
CATEGORY-RESEARCH ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: TO PARTICIPATE IN THE NATIONAL MUSSEL WATCH PROGRAM TO DETERMINE THE EXTENT AND MAGNITUDE OF CHEMICAL CHANGES IN THE COASTAL ZONES OF THE UNITED STATES. APPROACH: MUSSELS WILL BE USED AS INDICATOR ORGANISMS OF CHEMICAL CHANGES IN LOCAL COASTAL WATER. SAMPLES WILL BE ANALYZED AT THE BODEGA MARINE LABORATORY FOR VARIOUS SYNTHETIC ORGANIC COMPOUNDS AND FOR PETROLEUM. DATA ON IDENTIFED COMPOUNDS DETECTED WILL BE STORED ELECTRONICALLY FOR SUBSEQUENT REFERRAL. IN SELECTED INSTANCES, LOCAL MARINE WATER WILL BE SAMPLED AT THE TIME OF MUSSEL COLLECTION TO DETERMINE THE NATURE OF THE PARTITIONING OF ORGANIC POLLUTANTS BETWEEN THE DISSOLVED AND PARTICULATE PHASES OF SEAWATER AND THE INDICATOR ORGANISM.

268.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

' Form Approved
OMB No. 158-R0081

PROJECT NO.(Do not use this space)

SSIE

EPA R 807202-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Who's Who In The Federal Government's RD&D Oil Shale Program

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Principal Investigator - Paul A. Westcott, Research Chemist

Other Professional Personnel - Robert E. Pressey, Head, Chemical Division

NAME AND ADDRESS OF APPLICANT INSTITUTION

Denver Research Institute, Chemical Division, 2390 S. York Street,
Denver, Colorado 80208

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

(1) Objectives: Provide a published reference that identifies the key government employees who work in the oil shale RD & D programs.

(2) Approach: Survey by letters, telephone and personal contact with all government agencies whose work involves oil shale. Organize and summarize and index the information.

(3) Plans: Publish the report titled: "Who's Who in the Federal Governments RD & D Oil Shale Program" in October of 1979.

268.2

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
SSIE CR 807205-01
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Economic Analysis of Pesticide Use

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

J. R. Allison, Project Leader-Economist, D. C. Carley, Economist, R. F. Anderson, Economist, J. E. Epperson, Economist, W. A. Chandler, Plant Pathologist

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Georgia Research Foundation, Boyd Graduate Studies, Research Center, Athens, GA 30602

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objectives - Determine cost and benefits of the use of pesticides on crop and non-crop sites in Georgia and other states.

Approach - Determine current usage of RPAR chemicals on five sites: tentatively peanuts, peaches, pecans, wood preservation and forestry. Conduct economic impact analyses of these RPAR chemicals. Initiate baseline benefit/cost analysis of pest control on two of the above five sites.

Work plan - Secondary data, Georgia farm record system, and firm surveys will be used to determine current usage. Data from historical research trials will be used to determine alternative procedures and/or chemicals and the level of pest control associated with alternative procedures or chemicals. Budgeting and optimizing techniques will be used to compare alternatives as to relative costs and benefits.

268.3

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

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Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)

SSIE

EPA CR 807211-01-0

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT: Analysis of risk/benefit decisions of pesticide use affecting the economy of California and other states

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Gordon A. Rowe, Economist
Giannini Foundation of Agricultural Economics
University of California
Berkeley, CA

NAME AND ADDRESS OF APPLICANT INSTITUTION

Giannini Foundation of Agricultural Economics
207 Giannini Hall
University of California, Berkeley, CA 94720

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Conduct economic analyses of proposed regulatory actions on specific problem pesticides (RPAR's) on use sites in California and elsewhere in the United States as defined by the EPA Project Officer. Typically, economic impacts of shifting from use of an RPAR chemical to other chemicals or non-chemical alternatives (including integrated pest management/biological controls) are the focus of such analyses. Analyses may be conducted independently or in conjunction with USDA/EPA/state assessment teams. UC analysts will attend USDA/EPA team assessment meetings as appropriate and conduct other travel as necessary to obtain data and conduct analyses. The types of sub-tasks which may be scheduled wholly or in part in connectiou with a specific analysis are indicated in Attachment A.

Conduct baseline analyses of the benefits and the costs of the control of the economic pests by chemical and non-chemical means on a site without reference to a specific regulatory action pending at EPA. The selection of such site(s)/pest combinations will be made jointly by the EPA Project Officer and the UC Project Officer. The sub-tasks for this activity are included in Attachment B.

268.4

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF .ESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO.*(Do not use this space)*

SSIE

EPA

R-807222-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Laboratory and Field Trial Evaluation of the Cost/Effectiveness of Two Types of Personal Ultraviolet B Dosimeters

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Arthur J. Sober, M.D., Assistant Professor, Department of Dermatology
Thomas B. Fitzpatrick, M.D., Professor and Chairman, Department of Dermatology
John A. Parrish, M.D., Associate Professor, Department of Dermatology
R. Rox Anderson, Physicist, Department of Dermatology

NAME AND ADDRESS OF APPLICANT INSTITUTION

Massachusetts General Hospital
32 Fruit Street
Boston, Mass. 02114

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data)*. In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Two types of personal ultraviolet B monitors (film badge, electronic) will be evaluated to determine accuracy of response under laboratory and field trial conditions. The objective is to determine which monitor would be most useful for future large field trials in which the quantification of ultraviolet B exposure is determined for a variety of occupational and recreational exposures. By this method some quantification of environmental hazard from ultraviolet B exposure will be possible.

268.5

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OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. (Do not use this space)
SSIE R807232-01
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Pesticide Usage Survey Project

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Glenn L. Northup, National Project Director, Senior Community Service Employment Program

Norma Gillette, Pesticide Inventory Coordinator, Senior Community Service Employment Program

NAME AND ADDRESS OF APPLICANT INSTITUTION

National Retired Teachers Assc./American Assc. of Retired Persons
PO Box 19269
Washington, D.C. 20036

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Comprehensive information does not exist on the usage of pesticides in the united States, and what does exist often lacks statistical validity and specificity as to chemical, target pest, method and rate of application, etc. This nation-wide survey would provide this data on a state-by-state basis. The inventory will survey household and other non-agricultural uses of pesticides, collecting data on each form of usage on an alternating year basis.

This demonstration program will test the feasibility of providing a network of older workers, state by state, to coordinate and carry out the on-site survey data collection, and will demonstrate the manpower structure necessary to conduct the survey in all 50 states.

Fifty older persons will be employed part-time to serve as State Survey Leaders. They will work with the National Pesticide Inventory Coordinator to develop cooperative relationships with Title V (Older Americans Act) contractors, State Pesticide Coordinators and others as necessary to the operation of the survey. They will be responsible for the recruiting, training and direction of the activities of the surveyors. It is estimated that 500 part-time older workers will be employed to carry out the actual, on-site data collection.

268.6

U.S. ENVIRONMENTAL PROTECTION AGENCY

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OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. (Do not use this space)
SSIE
EPA R807240-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Aquatic Toxicity Testing and Criteria Document Development

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Robert V. Thurston, Director
Fisheries Bioassay Laboratory

NAME AND ADDRESS OF APPLICANT INSTITUTION

Montana State University
Bozeman, Montana 59717

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The purpose of this research project is (a) to prepare an aquatic life criteria document for ammonia and (b) to conduct aquatic toxicity tests on fishes and aquatic invertebrates as needed by EPA to supplement available data bases for preparation of criteria documents.

The immediate objective is to conduct a limited number of short-term bioassays to provide additional data to be used in the preparation of a water quality criteria document for ammonia. A second objective is to prepare a criteria document on the biological effects, fate, and transport of ammonia in fresh and salt water environments, as well as a discussion on analytical methodology and related problems in determining ammonia concentrations in water. The bioassays are scheduled to be completed during the first six months, and the criteria document is scheduled to be completed before the close of the first year of the work plan.

Similar aquatic toxicity tests will also be conducted and documents will be prepared for other toxic chemicals based upon specific needs of the Office of Waste Water Management, EPA.

•PROJECT: 006011-STATISTICAL METHODOLOGY FOR ENVIRONMENTAL MEASUREMENTS

TASK =F827J-793910 ••EPA=R807241 •• (GRANT)
STARTING/ COMPLETION DATE : 09/79 - 09/82 : FY79

EPA OFFICER.: J MCSORLEY EPA/IERL - RTP FTS 8-629-2745
INVESTIGATOR.: K ROWE OREGON STATE UNIV SCH OF SCI/ATMOS SCI DEPT
PROGRAM ID...: (PE-827) ENV IMPACT OF CONV & ADV ENERGY SYSTEMS
ORDIS CODES..: RECN-006011 SSIE-GMA 6500 EPA -R807241 ORD -RF10B30-2079
PE -827
PROJ STATUS..: PROJECT-ACTIVE INFO-ORIGINAL ENTERED - 06-28-80 UPDATED- 06-28-80
CATEGORY-RESEARCH ACCESS-PUBLIC

ABSTRACT.....: APPROACH: PROVIDE STATISTICAL METHODS THAT MAY BE USED BY EPA AND OTHERS IN ANALYZING MULTI-MEDIA POLLUTANTS. AND/OR PROCESSES.

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OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. (Do not use this space)

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EPA R-807256-01-0

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Developmental Evaluation of Microbial Bioassays for Aquatic Herbicides, Pesticides and Heavy Metals. Phase II

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

P. I. - Gordon A. McFeters, Professor of Microbiology, Microbiology Department
Montana State University, Bozeman, MT 59717

Post-doctoral Fellow - unknown

NAME AND ADDRESS OF APPLICANT INSTITUTION

Montana State University
Bozeman, Montana 59717

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objectives: To compare the bioluminescence method of Tchan and bacterial bioluninescence bioassays as means of detecting metals, herbicides and heavy metals.

Approach and Current plans: Bioassays to detect and measure toxic substances in water using luminous bacteria will be improved and/or modified where possible. These test systems will then be evaluated and compared on the basis of their efficiency to detect and measure potentially toxic substances in water.

*** SUMMARY ***

TOTAL PROJECTS	402
SAVED PROJECTS	402
PURGED PROJECTS	

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